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ORIGINAL ARTICLES.

THE HYGIENE OF THE ESKIMO, WITH SOME OBSERVATIONS ON THEIR THERMOMETRY TO DETERMINE THEIR PHYSIOLOGICAL NORM.

BY EDWARD H. GREEN, M.D.,

P. A. SURGEON, U. S. N.

DURING the cruise of the United States Steamer "Thetis" while in the Arctic, engaged in the relief of the Lady Franklin Bay Expedition, I made some observations on the general hygienic surroundings of the Eskimo; as to their food supply, their mode of procuring it, and the hygiene of their habitations. I did this as preliminary to making some observations with the clinical thermometer to determine whether or not a continuous existence in low temperatures had any effect in reducing the norm of physiological temperature. These observations were made with difficulty, owing to the non-coöperation of the subject in many instances, and only include some thirty-seven cases, but sufficient to make some deductions therefrom.

Our contact with the natives included those met with in Disco, Greenland, a settlement containing about 225 souls; those in Upernivik, numbering about 300; those in Tessuisak, about 80, and a nomadic tribe off Wostenholme Island, comprising about 25; these latter presented the pure type of Eskimo, without any Danish admixture.

The inhabitants of Disco, Upernivik, and Tessuisak are colonized, and live under Danish influence and laws, and may be termed semi-civilized. Most of them show evidences of Danish blood, being light in color, with a light tinge of hair and blue eyes, mostly short of stature, and well developed physically. Disco is in latitude 69° N.; Upernivik in 70°50′, and Tessuisak in 72°. The range of temperature for the year is about the same in the three places. Through the kindness of Gov. Elbong, of Upernivik, I got the monthly mean temperature for 1883, and he said that it represented about the average according to his experience of twenty-five years in the country. In January, the average for the month was —18° F.; for February, —22° F.; for March, —27°; for April, +2° F.; for May, +15°; for June, +22°; for July, +29°; for August, +36°; for September, +28°; for October, —5° F.; for November, —12°; for December, —16°.

These observations were made with a thermometer having the Réaumur scale; the correctness of the instrument and the readings must be taken for granted; it is sufficient to show that the natives live in a temperature with a yearly average closely bordering on zero Fahrenheit. Their food is almost wholly animal, as it is only by forced cultivation and the greatest care that anything vegetable is raised as an article of diet, and this is only done by the Danish officials, in little improvised hothouses, the yield being scarcely sufficient to pay for the labor. In this way lettuce, turnips, and dwarfed potatoes have been cultivated. The different varieties of seal, principally the bearded variety (phoca barbata), called the oog jook, the small seal or floe rat (phoca fœtidus), and the common or Greenland seal; together with the walrus and occasional bear, and several varieties of Arctic birds; together with a species of codfish, constitute the variety of their food that is yielded by the country; in addition to this, the Danish Trading Company sends out every year a sailing ship, which touches at the different trading posts, and leaves a supply of tea, coffee, flour, and sugar, in exchange for the furs, blubber, eider-down, and ivory that may have been collected. The Governor of each place supervises the distribution of these stores.

The Eskimo seem to have a convenient appetite; they can go without food for long periods, or eat five or six times a day, just as they happen to have it. They are improvident of food, and do not begin to lay in their winter supply oftentimes till it is too late, when they suffer from lack of it and appeal to the Governor, who obliges them to give him a tithing, which is left in reserve. It is said that were it not for this supervision, during severe winters the natives would soon become extinct from starvation. I have never seen a native eat more than what I estimated as five pounds of seal meat and blubber at a meal, though I have read of ten to fifteen pounds being a not unusual consumption at one sitting. They eat but twice a day as a regular habit, before going to bed, and almost as soon as they awake. From my limited observation, I would say that an adult consumes about eight pounds of solid food a day, subject to variations according to the amount of exercise and the external temperature, the small quantities of tea, coffee, and flour consumed at a meal scarcely require mention as factors in the food supply.

The natives of the Danish stations have better facilities for procuring their food supply than the wandering tribes farther north; some of the former are provided with rifles, of an ancient pattern it is true, but as they deem it a long distance to shoot at more than twenty or thirty feet, their ingenuity is spent on getting within close range of their game, and they generally secure it, if they fire at all. Besides, they are provided with small skin boats or kyaks, which are very light, but of great strength, and can be transported with great facility over the ice to open water. These boats have the javelin or spear as part of the outfit, and the Eskimo from early youth is trained to manage the kyak and throw the spear, so that they become exceedingly expert, and it is seldom that the hunter goes out in season without returning with his game. The Eskimo, on seeing

a seal come to the surface for air, will, with a few strokes of the paddle, approach his kyak as near as possible; when the seal disappears beneath the surface a few quiet rapid strokes puts the kyak directly over the spot, then with his javelin poised he waits for the seal to reappear; should the head show itself above water within a distance of ten or fifteen feet, their aim is almost unerring. After the seal is struck, the head of the javelin is slipped off, and to it are attached about six fathoms of line, on to which a large bladder float is tied. The line and bladder are immediately cast into the water, and the seal carries them off until he is exhausted, then the line is hauled in and the seal at the end quietly dispatched with a small knife; not always quietly, however, for a large seal when wounded will often show fight, and wreck the kyak. The loss of life attending the hunt is quite considerable, as the frail skin boats are oftentimes cut through by the ice or swamped in rough water; the hands of the hunter are necessarily exposed, and many of them suffer from their being frozen during severe weather. They procure their fish by dexterously using a short line, and attaching a small ivory hook to it. They bob this up and down through a hole in the ice, and the unsuspecting fish that bite are thrown out on the ice; they have no system of netting.

The tribes to the north of the settlements, variously known as the Innuits, and called by Sir John Ross the Arctic Highlanders, are thrown entirely upon their own resources; their food supply is entirely animal in its nature, and their means of procuring it more restricted, as they do not possess either guns or kyaks, but simply a javelin tipped with ivory; they conceal themselves beside a hole in the ice where the seals come, and watch their opportunity of securing the game. Since Sir John Ross first described these people, they have been fast dying off, so that from several tribes numbering hundreds, they now scarcely number a hundred souls. The few seen by us represented men, women, and children, numbering twenty-five; they all wore long black matted hair streaming over their eyes and face, were well built physically, had greasy, shining, smiling faces, and seemed happy and contented; their articles of dress comprised but three garments, made of bear-skin, the rough untanned skin next to their own, a jumper or hood covered the body, short-legged pants from the hips to the knees, and boots made of bear-skin completed the outfit; in most instances the jumper and pants did not meet at the waist, so that an isthmus of naked skin for an inch or two was plainly visible; the same occurred at the meeting between the pants and boots; even though the temperature of the air was at the time $+15°$F., and sufficiently cold to me to make heavy clothes comfortable, they did not appear in the least distressed, and I have no doubt that exposed in the same way they endure temperatures below zero. In the coldest weather they wear thin under-garments made of the breasts of the eider duck.

The natives of the settlements procure, from the yearly visits of the Danish ship, cotton material with which they make their under-garments, so that the skin clothing does not come next to their bodies. The outer garments of the Eskimo in the settlements are made of the short-haired seal, and consist of but three pieces—hood, pants, and boots, with the cotton under-garments above mentioned.

We have now seen, in a general way, how these people procure their food, the nature of it, and the probable quantity consumed; how they dress, and the nature of the wearing apparel. The next inquiry is, how they live, or the general hygiene of their habitations.

In the settlements the abodes are permanent and fixed; they are constructed for the most part of stone and moss about five feet thick, the most pretentious having some woodwork about them in the shape of a door or a window, but most generally the approach to the interior of a hut is made through a narrow passage about four feet high, three feet broad, and five feet in length; through this one crawls, and at the end is found a hanging curtain of skin, which, on being pushed aside, admits you at once into the living room, which is a general kitchen, sitting-room, and bedroom for the occupants of the dwelling, who may number anywhere from six to twelve. The sleeping quarters are arranged along the sides of the room on raised platforms. The ventilation of the room is secured by the air coming in through the narrow passage and finding its way beyond the curtain, but this passage air is something beyond description in the way of odor, as the dogs generally collect in the passage for purposes of warmth, and the inmates of the household use it as a water-closet until the accumulations get troublesome from their quantity, and impede easy ingress and egress, when they are removed by the women. In many households the urine is collected, as it proves, after the ammoniacal fermentation takes place, an excellent detergent for cleansing the household cooking utensils. There is, fortunately, a hole in the roof of the dwelling, ostensibly to permit the egress of smoke, but as it is kept most sedulously stopped up most of the time it does not carry out its original design.

An ordinary dwelling possesses the following measurements: Height, eight feet, with a sloping oval roof; width, twelve feet; length, ten feet, which gives nearly 1000 cubic feet of air space. Were there no occupants at all in the rooms, the air would be highly objectionable, as there is but little chance for circulation; but with from six to twelve eating, sleeping, and performing other avocations of life; with the room filled with smoke from cooking seal meat and blubber, which also adds a very strong odor; with the smoke from the moss dipped in seal oil as a lamp; with the odor coming from the passage of filthy dogs and animal excreta, you get a combination that in point of impurity would be hard to equal; add to this the facts that they sleep in their clothing just as they have worn it during the day, and that general or even partial ablution is seldom or never indulged in, and the wonder is that they pass through infancy to childhood, to manhood, and in many instances to old age.

During the period of the year when the sun is above the horizon, their life is active and spent mostly outdoors. The men engage in the hunt; the women in preparing and dressing the skins, and making articles of wearing apparel. For the 115 to

120 days in winter when darkness prevails, their lives become sedentary, and the hygienic surroundings, both personal and that of the habitation, are at their worst.

With the purity of the cold as a germicide, epidemic disease seldom prevails amongst them. Rheumatism, pneumonia, and a species of influenza contribute most largely to the death-rate. The Governor of each district keeps a list of births and deaths, but not much reliance can be placed on their diagnosis as to the cause of death. Scurvy has been known amongst the natives, but only during winters when the food supply has been very scant.

With these few general preliminary remarks as bearing on the results of the observations, it struck me that it would be of interest to take the temperature of as many cases as possible, together with the pulse, and determine whether or not the food supply being hydro-carbonaceous and heat-producing, would counteract the extraneous surroundings of cold and great exposure on people who have passed their whole lives in these high latitudes. It had been my intention to pursue a series of thermometric observations on the crew of the ship, had we remained in the Arctic sufficiently long to have experienced very low temperatures, so as to see the results of a temporary residence, but the shortness of the cruise prevented that being done.

The following table is made up of the cases observed, twenty-two at Disco, twelve at Upernivik, and three amongst the tribe that visited the ship off Wostenholme Island, in latitude 77°. The observations were all made with the same thermometer, which was corrected before leaving the United States. They were made in the forecastle house, which was always kept warm by a large stove. The natives were such as visited the ship out of curiosity, or to barter little articles. The thermometer was placed under the tongue and left there for five minutes.

Cases observed at Disco, Lat. 69°.

No.	Sex.	Apparent Age.	Pulse.	Tempt.
1	Male.	35	64	98°
2	Male.	18	68	98.3°
3	Male.	40	72	98.1°
4	Male.	24	64	97.8°
5	Female.	36	68	98.2°
6	Male.	60	66	98.2°
7	Male.	12	68	98.4°
8	Male.	24	66	98°
9	Female.	40	64	97.9°
10	Male.	50	60	98.2°
11	Male.	45	70	98.1°
12	Male.	30	68	98.2°
13	Male.	35	62	98.4°
14	Male.	38	68	98°
15	Male.	65	62	98.2°
16	Male.	32	66	98.1°
17	Male.	10	68	98.5°
18	Male.	26	72	98.1°
19	Male.	38	68	98°
20	Male.	42	60	97.8°
21	Male.	25	68	98.2°
22	Male.	35	66	98°

At Upernivik, Lat. 71°.

No.	Sex.	Apparent Age.	Pulse.	Tempt.
1	Male.	30	66	98°
2	Male.	26	64	98°
3	Male.	32	68	98.4°
4	Female.	45	68	98°
5	Male.	45	66	98.2°
6	Male.	35	69	98.1°
7	Male.	18	70	98.6°
8	Male.	24	68	98.4°
9	Male.	26	59	98°
10	Male.	30	66	98°
11	Male.	18	68	98.2°
12	Male.	24	66	98.4°

Arctic Highlanders, Lat. 77°.

No.	Sex.	Age.	Pulse.	Tempt.
1	Male.	35	60	98°
2	Male.	28	64	98.2°
3	Male.	45	60	98°

From an analysis of the foregoing table it will be seen that the results show but little or no variation from the general physiological temperature. In but three cases was the temperature found to be below 98°; and in but two was it over 98.4° (the recognized norm). The pulse ranged between 60 and 70; and in none of the cases examined was it rapid; more usually it was what would be termed slow and sluggish. The age had to be guessed at for lack of a positive means of determining. If these few cases are at all conclusive, they go to prove that differences of latitude make but an inappreciable difference on the question of animal heat, as shown by the thermometer, and that the nature of the food supply is sufficient to counteract the effects of natural forces.

SOME REASONS FOR THE PREVALENCE OF CALCULOUS DISORDERS IN HARD WATER DISTRICTS, WITH NOTES ON THE OPERATION OF LITHOTOMY.

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THERE must be some reason, or perhaps it is the result of many causes combined, for the prevalence of urinary calculus in certain well-defined districts. That the disorder prevails in the south of China, the number of patients received at the Native Hospital in Canton proves, yet after close observation, and a long residence in this populous district by Kerr and myself, we are unable to account satisfactorily for its prevalence. We can give drinking hard water as a cause, but this needs something to substantiate it more than mere statement. However, we cannot agree with Agnew, Keyes, Mastin, Civiale, and other prominent writers, who doubt that it is a factor in the production of stone. The fact that using hard water as a drink in localities where stone in the bladder is scarcely ever found, does not disprove the theory that in other districts where the same kind of water is used, it (the water) should have no effect in producing the disease. Nor have we a right to infer that since hard water produces stone, the stone itself should resemble in chemical composition the water used for drinking purposes. In the present state of

our knowledge of liver and kidney disturbances, we know that an alkaline water has its share in producing disturbances of digestion, the result of which is the excessive production of lithic or uric acid, a fact sufficient to explain the frequency of uric acid concretions.

It is necessary to examine the food of these patients, as well as the climate in which they live, after making the statement positively that the water used by them is hard; that the river rushes swiftly through gorges cut in the limestone hills, hence it holds a large quantity of lime in solution, and this lime is not precipitated by boiling the water before using it to make the national drink "tea," but is simply made hot. We must bear in mind that foreigners living in this district for twenty, thirty, or forty years, do not develop the disease, and yet, while not a single case has occurred, they live under climatic conditions, which if they have anything to do with producing the disease, other things being equal, would produce it in them. The food of the foreigner is very different from that of the native, and he uses no water without boiling or filtering it. Not, however, with any idea that the water would produce the disease, but because the mountains from which drinking water is brought are used as burial places, the tillable land being too valuable for cemeteries. The light Bordeaux wines are used largely for drinking purposes by the foreigner, and I have no doubt his fear of drinking the essence of dead men prevents him from taking into his system one of the principal causes of stone through its effect upon the digestion.

The food, then, of the native is rice principally—so far, all right; but the animal food used is fish dried in the sun and salted—dried until it resembles leather, and is as hard as the nether millstone.

Next, vegetables treated in the same manner. Now he could scarcely take a diet more likely to tax his digestive powers to the utmost than this. Our patients are poorly nourished and suffer greatly from liver disease, a condition brought about by drinking hard water and eating such food as I have described, and a condition, according to Fothergill, "favorable to the abnormal formation of uric acid. The abundance of lithates in the urine when the liver is actively engaged in the process of digestion, renders it highly probable that certain peptones instead of undergoing further elaboration are turned aside and broken up prematurely into lithic acid. These lithates do not in any way represent tissue waste, for they have never been tissue. Just so the material which forms the uric acid might have been tissue under more favorable circumstances," but I may add, passing out through the kidneys, and in greater abundance than the urine can carry in solution, are deposited and give us our uric acid stones. So too, Dr. Henry Bennett says: "I have repeatedly alluded to the presence of morbid salts in the urine as a result of imperfect digestion," and in enumerating these salts he places those of uric acid first. Hence we find the drinking of hard water by patients afflicted with liver and kidney disturbances favors the production of stone but not necessarily an alkaline stone, for in these patients the chemical constituents of the food which are not digested, and which consequently do not become tissue, are much more likely to produce a stone, the formation of which will agree with the superabundant acid, generally uric. Now that I have attempted to show why we have uric acid stones when an alkaline water is used as a drink. I may further state that my observations lead me to conclude that the climate in which this hard water is used, and in which this indigestible food is eaten, bears no small share in favoring a condition of the system favorable to the production of stone. The southern part of China, at least the part from which our stone patients come, is an immense marsh. A clay soil produces fogs through its retentiveness of moisture, and marshes abound in exhalations unfavorable to health. These two conditions exist coupled with a warm, moist atmosphere. The north-east monsoon blowing from October to April is accompanied by almost constant rains in February, March, April, which rains continue in May, and the rainfall at Canton for these months, respectively, is on an average, 2.11, 3.43. 5, 3.03, inches. The velocity of the wind is between 4 and 8 miles per hour. The highest reading of the barometer is 30.25, and the lowest reading 29.90; while the thermometer registers 75° and 45°. It must be seen from this that the climate is moist and warm, and that both natives aud foreigners suffer from what we are now in the fashion of calling malaria. Now a malarial district, indigestible food, and hard water each have a share in giving us our sixty or seventy stone patients each year, and I think all observers will agree with me that a prevalence of this disorder in a district with well-defined boundaries where hard water is almost exclusively used, disproves the idea that hard water has no part in producing the disease, because in certain hard water districts no urinary calculi have been found, for in those districts no liver disturbance sufficient to the overproduction of uric acid has been noticed.

To come to that which is practical of vesical calculi—the operation for the removal of the stone. This was performed by me some two hundred times, and it may be of interest to notice our results in this far-off country. The condition of the patient when admitted to the hospital is, if we except his digestion, good. The opium smoking to which many of them are addicted (I do not speak now of opium sots, but of those who use a small quantity of the drug daily) does not seem to influence the results. In fact, I may say here that this habit receives a great deal of condemnation by anti-opium advocates, who, if they posted themselves upon the spot, would withdraw much of what they have said against it.

For the liver disorders of our patients we administer the usual remedy of a blue pill, and when the eye becomes clear, tongue clean, and the functions of the bowels well established, it matters little the condition of the urine—the patient is considered in good condition for operation. In children and young persons we always administer a large dose of santonine, with the result of the patient's passing large numbers of intestinal worms. How different this treatment from that practised by the native physician. The patient is dosed with nauseous compounds, oftentimes half a pint at a time, and, the

disease not yielding, the moxa is used, till losing faith in the doctors of his own country he appplies to the foreign hospital.

Age seems to exercise a great influence upon the result of this operation. In the statistics of my report of the first 138 cases in which I operated I find, out of 46, the number of those under 20 years of age, I lost but 2. Referring to these same statistics, we have 25 between the ages of 20 and 30, with 3 deaths; 16 between 30 and 40, with no deaths; 35 between 40 and 50, with 2 deaths; 5 between 50 and 60, no deaths; and 9 between 60 and 70, with 1 death: a total of 8 deaths in 138 or 1 death in 17¼ operations. This result was largely due to the fact that the Oriental sustains surgical operations much better than the Anglo-Saxon. This is true of the Chinese, Japanese, and Malays, and in our hospitals in the East it is a rare thing that we are called on to treat erysipelas, pyæmia, or tetanus, after operations; yet we do not use the antiseptic method of Sir Joseph Lister. If we did, perhaps our results might be better; still I question if better results are obtained with it. It would be simply an impossibility to make the Chinese appreciate such thorough cleanliness as is necessary to carry out this system. There seemed to be no particular season of the year when we obtained better results than at others.

The hygienic surroundings of our Chinese patients are bad. Each patient brings his own bed and bedding, and is generally accompanied by some member of his family to cook for and nurse him. This custom was instituted when the hatred of the Chinese toward the foreigner was so great as to make it a hazardous undertaking to lose a patient in the hospital, hence a relative was admitted with him to see that he was not disposed of in any irregular manner, such, for instance, as killing him to obtain his eyes for medicine, a popular belief amongst the Chinese. This custom still prevails, although the cause for it no longer exists. This impromptu nurse is carefully watched by the regular nurses of the hospital. These latter have had no special training, do not speak English, and allow the patients to live while in the wards very much as when at home, with certain restrictions as to diet. The wards are built after the style of Chinese architecture—one story high, with sliding skylights, a window at one end, and a door at the other, in which we have cut large circular apertures which the patients cannot close. We are thus compelled to place our ventilating apparatus beyond the reach of the patients, as the Chinaman like our negro has a penchant for closing a room he occupies very tightly. The walls are of lime and are thoroughly whitewashed every month. I am particular to mention these apparently insignificant points to show that hospitals constructed on strictly hygienic principles are not necessary to give us good results where we have Chinese for patients.

These being the surroundings and the patient in condition we operate by the usual lateral method. I have adopted one or two departures in the operation which, after a considerable experience I am convinced are of value, and you will pardon me, therefore, if I consume enough of your time to speak of them. I am convinced that a small incision into the prostate and bladder, and dilatation with the finger should be the surgeon's object in this important operation. Admitting this, whatever plan allows the introduction of the finger into the bladder, through the smallest incision which can possibly be made, is the best. The usual way after the prostate and bladder have been cut, is to withdraw the knife, and by twisting and pushing force the finger into the bladder. Now if the staff be removed, how much more space is allowed the finger, for a cardinal point is to use a staff which entirely fills the urethra? But if the staff is withdrawn considerably embarrassing attempts are made to find the incision, and failure often results. To surmount all these difficulties, I introduce a small grooved director (and being grooved, it is stronger than a round probe of the same size) into the incision beside the knife as I withdraw the latter. The end of the director in the bladder, I remove the staff, and can now introduce my finger without fear of losing the incised place, where before great force would have been necessary, considerable space being taken up by the staff so many times larger than the director. The credit of this method should be given to Kerr, whose results in this operation are wonderful, and who perhaps has operated as often as any living man. I believe I get better and quicker union after this method of dilatation than by cutting, and I certainly run less risk of wounding the rectum, an accident which, as Gross says, demands more attention than it gets. In this way Kerr has had the remarkably good fortune to get primary union after lithotomy, and I am confident it is to this point we owe our rapid recoveries.

Another point much discussed is the tube. Unlike the point just mentioned, it gets more consideration perhaps than it merits. I have, however, always allowed it to remain until from the usual swelling, which takes place within the first twenty-four hours after operating, it is gradually and gently pushed out. I introduce it in the first place to inject my cleansing water through, and, being in, the patient's knees are placed close together, thereby holding it sufficiently long for its good effects to follow. So far as preventing the closure of the wound by coagula is concerned, it is of no use, for if you inspect the external wound half an hour after the patient is placed in bed, you will invariably find the tube itself closely sealed with a clot; you remove it, and when you return again the tube is again closed. Therefore I see little difference, practically, between a wound closed by coagula entirely and closed by a tube which is itself stopped up. Nor does the urine escape by the tube while it is closed, and we know that it has nothing to do with preventing urinous infiltration of the tissues, for there will be no infiltration of the soft parts by the urine unless the pelvic fascia has been opened by a too free incision into the prostate. What good, then, does the tube do? Why this: we know that in the case of retention of urine on account of a very tight stricture, if a filiform bougie, which apparently entirely fills the urethra at the point of coarctation, is passed, and allowed to remain for a short time, the overdistended bladder is relieved drop by drop. Just so the tube, although closed by a clot, allows a small channel through the clots

which form around it through which the urine escapes, and it will never happen that the clots have to be removed to allow of the free escape of the urine—a thing which often does happen if no tube is used.

I regret that I am unable to give the proportion of those operated on who return for a second operation, another stone having formed, but I think it may safely be put at 1 in 70. Of course, the conditions exist which produced the first, but it is possible that the urethra, having been somewhat dilated by the passage of instruments when sounding for the stone, and the staff used at the time of the operation, may dilate the tube sufficiently to allow of the escape of a new stone when very small, which would have been retained had the urethra not been so dilated. For the performance of the second operation I have always made the incision into the perineum on the side opposite to that of the primary operation, to avoid the cicatrix as well as to cut the prostate in a new place. In this way I get quicker union and shun the adhesions between the rectum and prostate, which have resulted from the first operation.

TREATMENT OF DIABETES MELLITUS WITH CLEMENT'S SOLUTION OF ARSENITE OF BROMINE.

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JOHN S., aged 32 years, was admitted to the Germantown Hospital October 29, 1884, a pronounced case of diabetes mellitus; was sick six weeks previous to being admitted, at which time his domestic relations were such as to produce profound mental anxiety, which caused him to be delusive for several weeks, and when he applied for admission his spirits still remained much depressed, but he was rational and conversed intelligently; it should also be stated that there was possibly a hereditary predisposition to this disease, as the patient claimed his father suffered from a similar affection.

The patient's urine was examined and found to have a sp. gr. of 1.050, the amount voided in twenty-four hours being one hundred and three ounces, which readily responded to the several tests for sugar; the amount of sugar was not ascertained, but, as the urine contained very little urea, the high sp. gr. indicates a rather large percentage of sugar.

The patient was restricted to a nitrogenous diet, and placed on the several modes of treatment familiar to the profession, but without much, if any, improvement; his urine was frequently examined between October and the following April, and showed the sp. gr. to range from 1.040 to 1.050, the amount voided from eighty-five to one hundred ounces; he also became very much emaciated.

Some time in April we noticed, recommended by Dr. Austin Flint, Jr., the arsenite of bromine, "Clement's solution," for treatment of diabetes mellitus, and as all other agents had proven of no avail, we concluded to give this solution a trial, and report the following results: The drug was first administered in doses of three drops each ter in diem, increasing to five drops. After giving this solution for four days the urine was examined and found to have a sp. gr. of 1.018; amount voided in twenty-four hours, forty-two ounces; three days later the urine was again examined, sp. gr. 1.016, amount voided twenty-three ounces, in which condition it remained until the patient's death, of which a post-mortem showed the immediate cause to be phthisis pulmonalis.

Being encouraged by the above results, and rather predicting that something might be done for such unfortunate cases, we concluded to investigate still further the efficiency of this preparation, and therefore have, up to this present writing, seen nine cases treated in the manner above related with most happy results. Two of these cases were, as the one cited, quite chronic and subsequently died of phthisis pulmonalis, but the remaining seven of more recent development have increased in weight and assumed the responsibilities of life as in former years, and their urine is frequently examined with negative results; perhaps it would be presuming somewhat if we were to speak of these cases as being cured, for they may not have been under our notice long enough, but we can certainly join with Dr. Flint in recommending this preparation for trial at least, and possibly predict for it as being the future treatment of diabetes mellitus.

FRACTURE OF THE STERNAL END OF THE CLAVICLE

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FRACTURE of the clavicle is of so common occurrence, that the humblest practitioner is familiar with it. The outer third or acromial end is the part of the bone most frequently broken; the middle third is less frequently the seat of fracture, and a fracture of the sternal end is so rare that I may be excused for describing the following case, which came under my observation through the kindness of Dr. J. E. Clark, of this city.

A robust boy, aged 16 years, was thrown from a wagon and severely injured. A large contused wound was made upon the left side of the head over the parietal eminence, and on the acromial aspect of the shoulder. When examined he complained of severe pain at the root of the neck. Crepitus was heard and felt about an inch from the sternal end of the left clavicle. There was a marked tendency for the sternal fragment of the clavicle to ride upward by the action of the sterno-mastoid muscle, the sharp broken surface pricking into the platysma, and causing spasm of that muscle. Treatment was embarrassed by this fact, and the result of the union was not as good as could have been desired. A very large callus formed because it was impossible to keep the fractured surfaces in apposition.

This callus bears such a relation to the long axis of the clavicle that when the left arm is thrown forward across the chest or backward over the back, a sharp angle of bone swings up and down at the root of the neck, making a very unsightly deformity, and inter-

fering with the free use of the arm by the pain it occasions.

The treatment practised consisted in passing a figure-of-8 bandage about the shoulders, fixing the left arm in a sling, and applying graduated compresses secured by a bandage over the sternal end of the clavicle to keep it down in apposition with the quieter portion of the bone. The figure-of-8 bandage was made to pull the shoulder backward, extending the clavicle in the best possible manner. The sling limited the motions of the shoulder and scapula, so that there was the minimum of motions from this source about the fractured surfaces.

Notwithstanding carefully adjusted compresses of both hard and soft materials, the sternal fragment of the clavicle would rise into the neck, apparently pulled there by the action of a few fibres of the sterno-cleido-mastoid. The consequences of this displacement have been described above, and, in my judgment, they constitute the distinctive difficulties to be encountered in cases of fracture of this particular part of the clavicle. The relation which the sternal end of the clavicle bears to the sterno-cleido-mastoid muscle makes it almost impossible with any appliance to get a leverage sufficient to hold the fractured surfaces in contact. Movements of the head and neck will be more likely to cause displacement than will movements of the shoulder.

With a view to getting the minimum of deformity and inconvenience from fracture in this region, should it come under my observation again, I would use a plaster-of-Paris dressing of sufficient firmness and extent to control those movements of the head which are due to contraction of the sterno-cleido-mastoid muscle. Such a dressing could not be more cumbersome than the plaster-of-Paris apparatus that is sometimes used to immobilize the shoulder-joint. Subcutaneous section of the fibres of the sterno-cleido-mastoid muscle which attach to the clavicle—making a compound fracture, may, in some instances, be advisable.

MEDICAL PROGRESS.

THE SURGERY OF THE LUNGS.—DR. TRUC, in a thesis discussing the present status of surgery of the lungs, shows that pneumotomy partial or total, practised antiseptically, is generally well endured by the different animals and is compatible with life.

In general, applied to the treatment of tuberculosis, the operation has hitherto given deplorable results, while as an operation for secondary cancer of the lung, circumscribed and superficial, it seems useful and little dangerous.

The operation may be further advantageous:

1. In certain abscesses producing serious complications, their location being well established.

2. In circumscribed abscesses producing infection, their location being exactly determined.

3. In localized severe putrid bronchitis.

4. In rare forms of limited tuberculosis, represented by an isolated superficial cavity, the septic products of which occasion septic symptoms which directly endanger the life of the patient.

5. In large hydatid cysts, which are not spontaneously relieved, nor yield to the ordinary methods of cure.

6. In cases of intrapulmonary foreign bodies which have resisted ordinary means for their removal and produce inflammatory symptoms or destruction of the parenchyma, their locality being known with precision.

Dr. Truc further concludes that exploratory puncture, carefully made, is generally harmless, and frequently of great diagnostic value.

For the operation the thermocautery is to be preferred to the bistoury, as being less dangerous, and costal resection should be generally performed as a convenient means of opening large cavities, and for facilitating cure.

As adjuvants to the operation, antiseptic irrigations seem always useful and frequently necessary. Uncombined with pneumotomy, antiseptic injections seem but little beneficial.

As to intraparenchymatous injections in tubercular diseases, when carefully made with fluids but slightly irritating and in moderate doses, they are well endured, and while they neither aggravate the local condition nor arrest the progress of the pulmonary lesions, they in some cases seem to ameliorate the symptoms of the patient.

For making such injections, the axillary and subclavian regions are to be selected as being most accessible and least dangerous.—*Revue de Thérapeutique*, October 15, 1885.

THE MICROCOCCUS OF VAGINITIS IN CHILDREN.—Dr. JOHN CESÉRI examined the vaginal secretions of twenty-six children from 3 to 10 years of age, who were being treated in the Pesth Children's Hospital for various chronic diseases. In all of them a coccus was found, identical with Neisser's gonococcus. Dr. Ceséri asserts, contrary to Fraenkel's views, that this coccus is the same as that found in gonorrhœa. Many cases of chonic catarrhal vulvovaginitis are certainly infectious; others have not been proved to be so. The coccus of the infectious form is identical with Neisser's gonococcus. Cultivations have not, however, yet been made. The secretion of infectious vulvovaginitis affects the eye The spreading of this disease in children's hospitals takes place by means of washing, closets, bathtubs, dressings, and the nurses themselves.—*The British Medical Journal*, Oct. 17, 1885.

CONTRIBUTIONS TO THE STUDY OF THE CORPUSCLES OF BIZZOZERO, IN BOTH NORMAL AND PATHOLOGICAL CONDITIONS OF THE BLOOD.—FUSARI, *Giornale della R. All. di Medicinia di Torino*, Nos. 6 and 7, 1885, in a study of the corpuscles of Bizzozero, the so-called third element of the blood, has determined that in pure and fresh blood, to every 1000 red corpuscles there are present about 40 of these corpuscles.

In disease these bodies undergo certain modifications and of 53 observations upon 37 individuals and 15 forms of disease, the following observations were noted:

1. In every case in which elevation of temperature was noted, the corpuscles tended to diminish.

2. In anæmia, unaccompanied with fever, the proportion of these bodies generally exceeds the physiological limit.

3. The maximum number of the corpuscles does not correspond to extreme grades of anæmia, but if anæmia s progressive their increase is only relative.

4. The absolute maximum has been attained in cases of slow reproduction of the red corpuscles, and in which the corpuscles of Bizzozero attained the greatest dimension.

5. In two cases of chlorosis in which the number of red corpuscles was normal, there was absolute and relative increase of the corpuscles of Bizzozero.

6. In two cases of scorbutus these were increased, while the white corpuscles were reduced in number.

7. In two cases of pellagra, they were relatively and absolutely decreased.

8. In a case of extreme puerperal anæmia, two days before death the presence of nucleated red corpuscles was noted in the circulating blood.—*Rivista Internazionale di Medicina e Chirurgia*, September, 1885.

BISMUTH IN SURGICAL DRESSINGS.—MM. GOSSELIN and HÉRET, having experimented with bismuth as a surgical dressing, made a report concerning its efficacy at a recent meeting of the Académie des Sciences.

Subnitrate of bismuth was found useful in diminishing inflammation and arresting post-operative oozing of blood, and in promoting cicatrization without suppuration. The hæmostatic action of the bismuth is explained by the presence of a small quantity of nitric acid set free by the action of the water in which it is suspended.

Experience also shows the salt to possess antiseptic qualities, a fact which explains the absence of suppuration in wounds to which the dressing is applied.

The application of the salt in water in a proportion of 1 to 50 is recommended as preferable to sprinkling the powder directly upon the wound, and the application is made when oozing is not profuse.

MM. Gosselin and Héret call attention to the following practical points:

1. The subnitrate is preferable to the hydrate of bismuth, because the latter does possess the coagulating and constringing qualities due to the presence of the nitric acid in the former.

2. As to the method of application, whether in powder or suspended in water, the first possesses the advantage of more certainly producing the desired effects, but is inconvenient inasmuch as the bismuth is not absorbed but remains as a foreign body in intimate relation with the tissues, though suppuration is not thereby increased. If the salt is applied suspended in water, a proportion of 1 to 50 is preferable to that of 1 to 100.

3. The question whether sutures should be at once introduced, or whether the wound should remain open until the day succeeding the operation, is decided according to circumstances.

If hemorrhage is so profuse as to render probable accumulation of the salt in the wound, sutures should be introduced but the wound allowed to remain open until the following day, it in the meanwhile being covered with a dressing saturated with a mixture of bismuth and water (1 to 100) and compression bandages superimposed. A general rule is to close the wound as soon as drainage can be dispensed with.—*Revue de Thérapeutique*, October 1, 1885.

APOMORPHINE IN CROUP AND BRONCHITIS.—DR. STUTZ, of Neuminster, is loud in his praises of apomormorphine, subcutaneously injected in diphtheria complicated with croup, and in primary croup itself. Of ten of these latter cases, he lost only one, and this he attributes to his not having been called in quickly enough. Similar treatment is also very valuable in dyspnœa due to bronchitis. He has also been successful in cases of arsenical poisoning in children; and in one where a woman had such severe pharyngitis that she was quite unable either to swallow or speak. An apomorphine injection quickly emptied the stomach of pus and mucus, and enabled her both to speak and swallow.—*The British Medical Journal*, Oct. 17, 1885.

AN ANTISEPTIC PESSARY.—At the recent meeting of the French Congress for the Advancement of Science, M. HAYHEM presented an antiseptic pessary. The instrument consisted of a Dumontpallier's pessary, mounted upon a hemisphere of caoutchouc and supplied with a tube of the same substance. The hemisphere contains a sponge, and the pessary is so applied that the cervix comes in contact with the sponge, which is saturated with a concentrated antiseptic fluid of boracic acid, or of corrosive sublimate in proportion of 1 to 2000.

The latter fluid was preferred by M. Hayhem as promoting cicatrization, and a rapid reproduction of the epithelium. Cleansing of the parts should be made twice daily, without removing the pessary.—*Revue de Thérapeutique*, October 1, 1885.

UMBILICAL HERNIA; RUPTURE; EXTRUSION OF SEVERAL FEET OF INTESTINE; DEATH.—DR. RENNIE records the following case in the *China Customs Medical Reports*, No. 28: It occurred in a native infant whose mother died of puerperal fever. When first seen on March 3, 1884, the child was 27 days old, and his illness was doubtless due to improper feeding. For some days he had been much troubled with flatulence, and cried a good deal. Since the evening of the 1st of March he had cried almost constantly, and on the following morning an umbilical hernia, about the size of an orange, was noticed. About 4 P. M. the coverings of the hernia burst, and the intestines commenced to pass out at the opening. On the evening of the 3d of March, he was enveloped in quilts, which the attendants said they had applied to keep the intestines warm. On removing the coverings it was found that the greater part of the small intestine had passed out of the abdominal cavity and, deeply congested, distended with gas, and smeared with a loose motion that had recently been passed, lay on the surface of the abdomen. After cleansing the parts with sponge and weak solution of carbolic acid in water, and removing some of the flatus by means of a small aspirator needle, the opening in the abdomen was enlarged (it was found impossible to return the bowel without doing so), the intestines replaced, and the wound stitched up with carbolized silk. Eight hours afterwards the child died.—*Medical Times*, Oct. 17, 1885.

TREATMENT OF HYDATID CYSTS OF THE LIVER BY CAPILLARY ELECTROLYSIS.—M. H. HENROT, at the Congress of Grenoble, discussing the modifications of the treatment of hydatid cysts of the liver which have occurred during the last few years, referred to the methods of simple capillary puncture, puncture and drainage by the large ovariotomy trocar, direct opening by the

thermocautery, and finally the entire ablation of the cyst.

According to M. Henrot, capillary electrolysis (the needle being replaced by a canula, which remains free) also affords a valuable means of treatment of these cysts. The advantages claimed are:

1. The immediate suppression of pain.

2. By partial evacuation of the fluid from the sac, a more efficient chemical action takes place—the liquid being under a feeble tension.

3. During the passage of the current, it permits the escape of gaseous froth resulting from the chemical decomposition of the water contained in the cystic fluid.

4. It destroys the hydatids and changes a living into an indifferent substance, which solidifies and retracts without producing the least constitutional disturbance.

5. It obtains cure of the cyst without subjecting the patient to the danger of a serious operation, or to the hazard always accompanying protracted suppuration.—*Journal de Médecine de Paris*, October 11, 1885.

FISTULA OF THE MIDDLE TURBINATED BONE, WITH FETID DISCHARGE.—DR. SCHMITHUISEN reports two cases of fistula of the middle turbinated bone, accompanied by a fetid discharge. In both cases the disease had existed for eight or ten years, and had been attended with moderate pain and moderate swelling. The perforation was on the anterior part of the bone, near the lamina cribrosa. On the inferior portion of the bone, a polypoid growth was present, which filled the whole upper half of the nasal fossa and pressed upon the inferior turbinated bone, and after the removal of which the bone was first able to be reached.

Pressure upon the dense tumor gave exit to an exceedingly offensive discharge, by reason of which the existence of a cavity was considered probable. The tumor was accordingly perforated by a powerful galvanocautery, and the opening enlarged with a probe as far as the posterior portion of the bone. This step was followed by a further discharge of fetid flaky pus. The cavity was then thoroughly cauterized. Cure resulted in each case. The after-treatment was simple irrigation of the parts. In neither case was the antrum involved.—*Allgemeine Wiener med. Zeitung*, October 6, 1885.

INJECTIONS IN PARALYSIS OF THE BLADDER.—DUMREICHER recommends for paralysis of the bladder:

℞.—Ext. nucis vom. . . . . gr. iij to vj.
Aquæ dest. . . . . f℥ ix.—M.

Dissolve, and inject daily one-sixth of the solution, and allow it to remain in the bladder one hour. Electricity is also beneficial.

Urination should be as regular as possible, and to this end the bladder should be evacuated every four hours.—*L'Union Médicale*, October 6, 1885.

UNCONTROLLABLE VOMITING DURING PREGNANCY, CURED BY FEEDING THROUGH AN ŒSOPHAGEAL TUBE.—BRÜNNICHE, *Hospitals Tidende*, 1885, No. 29, reports the case of an unmarried woman with scanty, irregular menstruation, who, suffering severe gastric disturbance for two months, entered a hospital, and, under diagnosis of ulcer of the stomach, the possibility of pregnancy was denied. Soon after admission, vomiting became so severe that all food was rejected and inanition was threatened. Alimentation by means of an œsophageal tube was now resorted to, and broth, followed by cold water, before the withdrawal of the tube, was first fed to the patient without causing vomiting. Milk was then administered, and no vomiting being produced, it was followed by bouillon, etc., with like favorable result. After five days an attempt to swallow food caused reappearance of nausea and vomiting, and the use of the tube was again necessitated. Pregnancy was now readily diagnosticated. In three weeks the use of the tube was dispensed with, and the woman discharged cured.

A significant fact in connection with the case is that it was only necessary to introduce the tube into the entrance of the œsophagus, showing that the location of the sensitive region irritation of which occasioned the vomiting, was situated higher up in the digestive tract than the stomach.—*Centralblatt für Gynäkologie*, Oct. 10, 1885.

LAPAROTOMY THROUGH AN ERROR IN DIAGNOSIS.—M. CHIARA, at the late meeting of the Italian Medical Association, held at Perouse, reported the case of a woman aged 34, in whom was present an enormous abdominal tumor. The tumor was bilobed. The left and inferior lobe was the size of an orange, and fluctuating; the right lobe, less fluctuating, extended to the hypochondrium, and was in relation with the uterus. Incomplete amenorrhœa was present, and the cervix was small. Pregnancy was at first suspected, but the idea abandoned immediately, and puncture of the left lobe of the tumor made, by which about fourteen ounces of a slightly albuminous liquid, having a specific gravity of 1.004, escaped. A second puncture was followed by the flow of a red and colloid liquid, and diagnosis was made of a cysto-sarcoma; laparotomy being performed, a thick wine-colored fluid escaped on puncture of the tumor, but the instrument came upon a solid body, which proved to be the head of a fœtus. The second tumor was then removed, and the uterus sutured. Confinement occurred later, but, aside from tardy recovery, nothing abnormal was observed, and the patient is entirely well. Dr. Chiara considers the reproduction of the amniotic fluid and the toleration of uterine suture during pregnancy as worthy of note.—*L'Abeille Médicale*, September 28, 1885.

INTRAVENOUS INJECTIONS IN CHOLERA.—At a meeting of the French Academy of Medicine, held October 13, 1885, DR. ROUVIER, of Toulon, read a paper upon intravenous injections in cholera. The conclusions reached were:

1. Transfusion is indicated in cholera when the asphyxic stage is produced, notwithstanding the employment of all other therapeutic means. It has given in these conditions 33 per cent. of cures.

2. The treatment should be instituted as early as possible.

3. It should be used in all cases where a fatal termination seems imminent.

4. The injection should be repeated as often as collapse is threatened.

5. And should be continued until the patient has re-

covered his senses and intelligence, and until the pulse is easily counted.

6. The operation is entirely harmless.

7. Intravenous injection of artificial serum can only be considered as a means of producing reaction, but is without doubt the most powerful of all.

8. It is without effect upon the choleraic infection itself.

9. After its employment, as after that of all other methods to produce reaction, it is necessary to meet all indications as they arise.—*L' Union Médicale*, October 15, 1885.

THE THERAPEUTICS OF LEPROSY.—UNNA, *Monatshefte für prakt. Dermatologie*, from experience with a case of leprosy which he believes to have been cured, holds that:

1. Tubercular leprosy, even when generalized and extending over a period greater than one year, is curable.

2. Cure may be obtained in a relatively short period by energetic local and internal treatment.

3. The agents most useful in the treatment are sulpho-ichthyolate of ammonia, chrysophanic acid, pyrogallic acid, and resorcin.

4. The salts of the sulpho-ichthyolate of ammonia should be employed externally in concentrated solution. Internally, fifteen grains daily are sufficient, their action is efficacious in visceral leprosy. Externally, these preparations are valuable in debilitated patients with a very sensitive skin when more energetic agents cannot be employed, or when these have already irritated the skin.

5. Resorcin in ointment in a strength of twenty per cent., is a valuable remedy in the treatment of the disease.

6. Pyrogallic acid applied to the skin in ointment (five per cent.), or as a plaster, also gives good results.

7. Chrysophanic acid of a strength of ten per cent. is perhaps the best remedy with which to combat the disease. To avoid its introduction into the eyes, application should not be made upon the hands or face.

It may be employed along with other remedies.—*Revue des Sciences Médicales*, October, 1885.

THE FORMULA FOR A SAFE AND PRACTICAL GENERAL ANÆSTHETIC.—DR. B. W. RICHARDSON enumerates the requirements of a safe anæsthetic as follows:

1. It must be a fluid. Gases, however good, are not practicable as agents for general and ready use; and, as at the temperature of the blood they remain as gases, they exert, when dissolved in blood, no action from change of state within the organism. To narcotize with them it is, consequently, necessary to give them in large quantities—it may be even to the exclusion of air altogether. The influence of a gas thus administered is of necessity limited to the briefest interval of time; steady continuance would lead to death from asphyxia.

2. The fluid must possess homogeny and stability. Mixtures of different fluids are unreliable. Fluids which easily decompose under the influence of heat or of light are unreliable.

3. The fluid must be of pleasant odor, and must produce no local irritation when brought into contact with any surface. All the fluids which, like chloroform, amylene, and turpentine, cause redness and irritation of surface, cause also, when introduced through the blood, irritability of muscle and rigidity, together with vomiting.

4. The boiling-point of the fluid should be not less than 110° and not over 130° Fahr. A fluid which should have a boiling-point 20° Fahr. above the body, and other properties equally good to commend it, would be convenient in every respect It could be easily preserved, and as an anæsthetic it would be alike applicable to long and short operations.

5. The density of the vapor of the fluid should be about 40, taking hydrogen as unity.

6. The last, and perhaps almost the essential quality, relates to the solubility of the vapor in the blood. Up to the present time insufficient attention has been paid to this important point. Ether is too soluble, chloroform too insoluble. The mean between these two would be nearest to the requirement.

In brief, the agent wanted is a stable fluid; the oxide of a radical of the methene, ethene, or propene series, or of some similar hydrocarbon base, having a boiling-point of 50° C. (122° Fahr.), a vapor density of 40°, a solubility in blood of one part in fifty, at 37° C. (99° Fahr.), and yielding an unirritating agreeable vapor for inhalation.—*The Asclepiad*, October, 1885.

HÆMOSTATIC PILLS.—HUCHARD recommends the following:

℞.—Ergotine,
Quiniæ sulph. . . . . āā gr. xxx.
Digitalis pulv.,
Ext. hyoscyam. . . . . āā gr. iij.—M.
Ft. pil. No. xx.

S. Five to eight pills daily in the various forms of hemorrhage.—*L' Union Médicale*, October 13, 1885.

THE RELATIONS OF EPILEPSY AND HEMICRANIA.—MÖBIUS, in a discussion of the etiology of hemicrania, refutes the generally received opinion that hemicrania is of sympathetic origin, because of the well-known fact that diseases of this nerve, paralysis or irritation, are never accompanied with pain; and while not considering it as yet established whether the disease is neuralgic or vaso-motor in its origin, he allies it with epilepsy, and bases his conclusions upon the following facts:

1. Both diseases may originate from organic lesions of the brain, from reflex causes, or be presented as neuroses *per se*.

2. Both diseases are for the most part congenital and hereditary.

3. Both explode rapidly at periods widely separated, or the reverse.

4. Both diseases present prodromata of their attack.

5. As the epileptic attack may be typical or present its special features only in part, or be substituted by a complex of foreign symptoms, so in hemicrania at times scotoma only may supervene, while again only its equivalents, such as general malaise, weakness, nausea, may occur.

6. At times the attacks in hemicrania, as in epilepsy, are frequent, while again there is a true *status hemicranius*, analogous to the *status epilepticus*.

7. Both diseases are incurable and epilepsy of reflex

origin disappears with the removal of the cause; the same occurs in hemicrania, as is shown by facts lately published.

8. As to the location of the lesion in these diseases, while it is generally accepted that in epilepsy the seat is cortical, Möbius inclines to the opinion that in hemicrania the effects are due to irritation of the descending root of the trigeminus, in the region where the fibres separate to supply the dura mater.—*Rivista Internazionale di Medicina e Chirurgia*, September, 1885.

PEPTONURIA AND THE PHYSIOLOGY OF THE PEPTONES.—MAX WASSERMANN, *Thèse de Paris*, 1885, finds that:

1. Peptone is found in the urine in certain diseases, most frequently in such as are complicated with suppuration, or in which there are formed collections of some plastic substance.

2. Peptonuria appears to be constant in suppurating osteitis.

3. Peptonuria is caused by the destruction of the leucocytes, and its existence permits the diagnosis of suppuration or the regression of a plastic exudate.

4. Peptones introduced into the economy by other channels than the intestinal tract, are eliminated by the urine.

5. Peptones do not exist in the normal blood and do not traverse the intestinal walls unless converted into albumen.

6. It appears that the peptones are not directly assimilable, and hence the fact of their elimination by the urine after introduction into the blood by any other channel than the intestinal tract, such as by absorption from suppurating foci.—*Revue des Sciences Médicales*, October, 1885.

TREATMENT OF CARDIAC HÆMOPTYSIS.—M. GERMAIN SÉE, in the treatment of cardiac hæmoptysis, recommends the use of the aqueous extract of ergot, in doses of sixty to seventy-five grains in twenty-four hours, combined with a grain and a half to two and a fourth of opium.

Hypodermic injections of ergotine may also be used when not resulting in abscess. The use of turpentine in syrups or capsules also is advantageous, but most reliance is to be placed upon toning up the heart by the use of digitalis.—*L' Union Médicale*, October 15, 1885.

INFECTIOUS MALIGNANT PERIOSTITIS.—DR. ANDREA CECCHERELLI in a clinical and experimental study of infectious malignant periostitis, after reference to the literature of the condition described under this term, makes the following résumé of the points to be observed in its treatment:

1. In malignant infectious periostitis in view of the serious nature of the disease, deep incisions should at once be made, by which the bone may be preserved when there is doubt whether its substance proper is diseased. Drainage should also be established, and the wound repeatedly washed with sulphocarbolate of zinc, carbolic acid, or chloride of zinc.

2. Trephining should be performed early. In order certainly to reach the track of the suppuration, the trephine, should be applied in several localities. The bone should also be scraped, and in cases of extreme extension of the disease resection should be practised.

3. Amputation should not be resorted to until by reason of the existence of diffuse inflammation and abscess of the bone, as shown by profuse suppuration, the general, together with the local symptoms, are most serious.

4. The use of tonics and antiseptics should be at once instituted, and all complications combated.—*Lo Sperimentale*, August, 1885.

TOTAL ABSENCE OF THE VAGINA; MENSTRUAL RETENTION DURING TWO YEARS, FOLLOWED BY OPERATION AND CURE.—EASTMAN reports the case of a girl fifteen years of age who for two years experienced periodic pain in the pelvis, which each month increased in violence, finally becoming constant and accompanied with much discomfort during defecation.

The right iliac region was occupied by a tumor, gourd-like in form, and while the external genitals were normal, no trace of a vagina was discoverable.

The patient being anæsthetized, the uterus and Fallopian tubes were found distended with retained menstrual fluid.

Introducing a finger into the rectum and a sound entrusted to an assistant into the bladder, Dr. Eastman made an incision sufficient for the admission of his finger and then, aided by the handle of a bistoury, tore the tissues until the uterus was reached. This organ was then punctured and more than two quarts of retained fluid escaped.

In order to prevent the irrigating fluid from entering the abdominal cavity through the Fallopian tubes, a double canula was used.

Though puncture had been made through the uterine wall, the os uteri was discovered later, and drainage established through it.

A Sims's vaginal dilator was used to prevent closure of the vagina. In the progress of the case toward recovery, nothing abnormal occurred until six weeks subsequent to the operation, when the patient complained of intense pain. It was found that atresia of the cervix had occurred, which on dilatation permitted the escape of more than a quart of pus. From this time on the patient menstruated regularly, and permanent establishment of the menstrual function seems assured.—*Archives de Tocologie*, October, 1885.

PERITOMY FOR GRANULAR LIDS.—MR. SPENCER WATSON exhibited at a recent meeting of the Ophthalmological Society of the United Kingdom a case of granular lids and rough vascular corneæ treated by peritomy, with partially successful results. The patient was a woman, aged 22. The right eye was operated on in May, and the left in July last. The improvement was but partial in both eyes, the corneæ having become somewhat clearer and less vascular, but the palpebral mucous membrane remained as rough and granular as before the operations.

MR. ANDERSON CRITCHETT thought that Mr. Watson had exaggerated the late Mr. G. Critchett's opinion, which was that, in many cases, peritomy sufficed without other treatment; in others, it was necessary to treat the granulations after peritomy. If a considerable power of constitutional repair were present, then the tight cicatrix necessary for the complete cure would be formed, but this frequently failed to occur in strumous

subjects. No doubt, in some cases, the treatment by jequirity is sufficient.

MR. NETTLESHIP said that, in his experience, peritomy had, in a certain proportion of cases, given most brilliant results. In one case in which he had freely used jequirity, the subsequent performance of peritomy was followed by a most satisfactory result, the corneæ becoming almost perfectly clear.—*British Med. Journal*, October 24, 1885.

ARSENIC IN THE TREATMENT OF CHOREA.—At a meeting of the Harveian Society, held October 15, 1885, DR. W. B. CHEADLE, speaking from the careful notes, of 160 cases of chorea observed during the period of eight years, stated that the average duration of the disease, under treatment, had been five weeks (the extremes being ten weeks and four days); whereas cases without treatment may extend from eleven to fifty-two weeks, or indefinitely. The author had tried various methods, including rest and expectancy, with results sometimes beneficial, but never completely successful. In arsenic, he had at last found an agent which did succeed. Todd, as long as forty years ago, had recognized its power; so had Babington and Begbie: but dread of the poison had checked their use of the remedy. Dr. Cheadle narrated some striking cases of rapid improvement under the influence of ordinary doses of liquor arsenicalis, with small doses of tincture of perchloride of iron. A comparison of a long series of cases treated without arsenic and with arsenic, respectively, gave for the former an average duration of forty days; for the latter, twenty-nine days; and this difference was increased when the last fifty-eight cases were compared with fifty-eight consecutive cases in the former series, the average duration under arsenic being only twenty-four days. Arsenic was in every case well borne, excepting a remarkable result repeatedly observed by the author, but not hitherto described by others; namely, a bronzing of the skin analogous to that observed in Addison's disease. The staining was most marked in the flexures, did not affect the face, and ultimately disappeared. In one case, however, it had become permanent, but would probably vanish in time. The pigment deposited was not metallic, as in discoloration by silver, but resembled the pigmentation due to chronic congestion. In conclusion, whilst advocating arsenic in chorea, the author did not wish to depreciate the value of other therapeutic agents, which should be employed concurrently.—*British Med. Journal*, October 24, 1885.

DERMATOSES CONSECUTIVE AND ANTECEDENT TO RENAL DISEASE.—DR. GEORGES THIBIERGE, in an exhaustive discussion of the relation of dermatoses with diseases of kidney and with albuminuria, clearly shows that certain forms of nephritis may accompany or follow certain forms of skin disease. Examining the three principal theories by which it is attempted to explain the presence of albumen in the urine under these conditions, namely:

1. That albumen is due to the suppression of the cutaneous functions, especially that of perspiration.

2. That it results from disturbance of the renal circulation, produced by the irritation which the cutaneous lesions excite in the terminal nerve fibres.

3. That it is excited by an infectious nephritis consecutive to the introduction into the blood current of microörganisms originating in the cutaneous lesions;—he dismisses the first theory as inapplicable to human pathology, and while it is admitted that for some cases in which the albuminaria is slight and transient the second theory is sufficient explanation, it is to the third as supported by the great number of cases in which the renal disturbance occurs, and in which it first disappears only when the skin disease is cured, that the author unhesitatingly subscribes.

Dr. Thibierge next considers skin diseases as consecutive upon renal disease.

Various forms of skin disease, among which are pruritus, roseola, purpura, pustular eruptions, etc., are discussed under this head, and the author concludes that although their origin is probably of uræmic nature, this cannot be affirmed without reserve.

The study of Dr. Thibierge is extremely interesting, as showing the complexity of the relations existing between cutaneous disease and nephritis, the author proving that each may follow or precede the other as cause or consequence, and that they mutually may react and aggravate each other.—*Annales de Dermatologie et de Syphiligraphie*, August and September, 1885.

THE ACTION OF THE IODIDES UPON GENERAL NUTRITION, AND THEIR METHOD OF ELIMINATION.—DR. DUCHESNE (Thèse de Paris, 1885), in a study of the action of the various iodides, holds that it is impossible to consider the iodides as a unit, either as accelerators or moderators of nutrition, inasmuch as some, as metallic iodine and the iodide of potassium, hasten the disintegration of nitrogenized matter, while others, as the iodides of sodium and calcium, retard it. There is accordingly no equivalence of action among these different agents, neither as relates to intensity or mode of operation. According to the form in which iodine is introduced into the economy, whether as the metalloid or combined with potassium, effects different both in intensity and nature are obtained.

Further, the general effects of the drug are influenced by the condition of the kidneys and the constitution of the patient.

As a general rule, when it is desired to influence nutrition for the relief of such diseases as gout or chronic rheumatism, metallic iodine is to be preferred.

According to Dr. Duchesne, the iodides of potassium and sodium increase, while the iodide of calcium decreases, nutrition.

The iodides of potassium, sodium, calcium, and ammonium increase the production of uric acid, while the tincture of iodine diminishes it.

The elimination of phosphoric acid is diminished by the iodides of sodium and calcium and increased by the iodide of ammonium and tincture of iodine. Under the action of the iodide of potassium it may be increased or diminished.

The iodides of potassium and calcium decrease the elimination of the chlorides, the iodides of ammonium and the tincture of iodine increase their elimination, while the polyiodides appear indifferent. The rapidity with which iodine is eliminated by the urine is not so great as represented by some authorities.—*Revue Médicale*, September, 1885.

THE MEDICAL NEWS.

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SATURDAY, NOVEMBER 7, 1885.

ACTINOMYCOSIS.

SCARCELY eight years have passed since BOLLINGER described in the ox, and JAMES ISRAEL in man, the first examples of this curious disease, and already the literature on the subject is extensive, very many cases having been reported, chiefly in Germany.

The actinomyces is a parasitic fungus consisting of a central matted tuft, or mycelium, from which simple or branched club-shaped threads radiate, so that the whole forms a rosette-like body. The bunch thus formed has a yellow tint, and may become calcified, and this little yellowish, gritty body, which can be plainly seen with the naked eye, is of great importance in the diagnosis of the disease. The parasite induces the development of nodular growths not unlike tubercles, consisting of round cells, and, in some instances of epithelioid elements and giant cells. There is a strong tendency to suppuration, more particularly in man, in whom the firm, sarcoma-like growths of "big jaw" in cattle are very rarely seen. The position of the fungus is still undetermined, but it is usually grouped among the moulds. OSCAR ISRAEL, BOSTRÖM, and others have successfully cultivated it on gelatine, and induced the disease in animals by inoculation.

The pathological aspects of the affection are admirably portrayed in PONFICK'S memoir on the subject published in 1882, and James Israel has made a critical study of the clinical features in a recent monograph issued by HIRSCHWALD, in which the recorded cases are carefully analyzed.

Three groups of cases can be recognized according to the mode of entrance of the parasite: by the mouth and pharynx, by the air passages, and through the intestines. In the first group the disease is localized in the lower jaw, the submaxillary region, the neck, and retro-pharyngeal region, and may pass back to the spine and base of the cranium. It seems probable that in all these cases, as in cattle, the disease originates in diseased teeth, as there was affection of these parts in fourteen or fifteen cases of this group, in which the condition of the teeth and jaws was noted. In an unreported case of Israel's, there was a central actinomycotic process in the lower jaw identical with the "big jaw" of cattle. In a few instances the disease appears to have begun on the tongue or tonsil, but it seems clear that, in the majority of cases in which the mouth and neck are affected, the process begins by an invasion of the parasite in diseased teeth.

To the second group of cases, pulmonary actinomycosis, Israel makes the most valuable contributions, and we feel that he has added a new and formidable disease to the already long list of lung affections. Of nine cases, in one, that of Cantani, the process was limited to the bronchial mucous membrane. In the others the lung tissue was involved. The clinical picture is complex. The process is chronic and may exist a year without severe symptoms. The sputum contains the yellow actinomycotic granules, and is so far characteristic. Peribronchitic and pneumonic changes are excited in the substance, and cavities ultimately form. The disease tends to extend to the pleura, excites empyema, involves the costal layer, and has, in many instances, caused necrosis of the ribs and external fistulæ. The prevertebral tissues become involved with caries of the spine. The peritoneum may be affected through the diaphragm, and the mediastinum and heart have been involved in some cases. In addition to this direct extension in pulmonary actinomycosis, there have been, in these cases particularly, numerous metastases which impart to them the clinical aspect of a chronic pyæmia Skin, muscle, heart, liver, intestines, and brain, have been found the seat of actinomycotic abscesses. The course of the disease has ranged in the cases from five to twenty months.

In the third group, the disease begins in the intestinal tract. It may be, as in Chiari's case, superficial and confined to the mucosa, producing large, flat plaques, but more commonly, it starts in the substance as nodular actinomycotic growths, which suppurate and induce ulceration. The ulcers may be most extensive, and the process may extend to the serosa. By adhesions taking place between the coils and perforation of the ulcers, a series of communicating abscesses may be formed. The peritoneum has been found extensively involved, and the pus may penetrate externally, or burrow in the retroperitoneum.

As can readily be conceived, the symptoms of the

disease are most diverse, depending largely upon the organs affected. When localized in the jaws or neck, there is a reasonable hope of effecting a cure with the knife, but when it is deep seated, and has produced metastasis, treatment is unavailing. The disease occurs extensively among cattle in this country, and two cases have recently been reported from Chicago. Others will doubtless be detected when the attention of surgeons is directed to the subject. The presence of the yellow actinomyces granules in the pus may be taken as pathognomonic of the existence of the disease.

DISTENTION OF THE RECTUM AND SUPRAPUBIC LITHOTOMY.

Since the time when suprapubic lithotomy was first practised, more than three hundred years ago, nothing has contributed so much to the favor with which it is now regarded as the invention of that step in its *technique* which is known as Petersen's method. This method consists, as many of our readers are aware, in forcing the bladder out of the true pelvis, and elevating the fold of peritoneum which usually comes down in front of it, almost, or quite, to the level of the symphysis pubis, by distending the rectum and bladder.

The first suggestion of this plan is usually attributed to Prof. Petersen, of Kiel, who, in a paper read before the Ninth Congress of the Deutsche Gesellschaft für Chirurgie, on April 7, 1880, gave an account of some experiments which he had conducted to demonstrate the effect of such a practice, and of two operations in which he had resorted to it with entire success, on the strength of which he urged its adoption as a general method. The originality of this idea of Prof. Petersen was not questioned at that time, and the few surgeons who discussed his paper seemed to think that neither it nor the suprapubic operation was worthy of adoption. Yet, only two years before, the very same body had listened to a communication from Prof. Braune, of Leipzig, who reported the results of some experiments which had been made, under his direction, by Dr. Garson, of Edinburgh, at that time studying with him, the object of which was to determine the effect upon the contents of the pelvis of the distention caused by introducing the hand into the rectum for the purpose of exploration, as suggested and practised by Simon.

The bearing of these experiments on the subject of suprapubic lithotomy seems not to have been observed by Prof. Braune, or by his hearers—unless Prof. Petersen was among them. But it was not overlooked in the paper giving an account of them which Dr. Garson himself published in the *Edinburgh Medical Journal*, in October, 1878; for here it is distinctly stated: "It is evident that in performing the suprapubic operation for lithotomy or puncture of the bladder that viscus can be as easily raised above the symphysis by distending the rectum as by injecting the bladder, and that in cases where it is not advisable to distend the bladder to a large size, distention of the rectum is all that is required to make the parts suitable for the operation." Nevertheless, although this sounds like the plan of Petersen, it will be noticed that it is not identical with it. Dr. Garson, while he learned from his experiments that it is solely by the distention of the rectum that the peritoneum is carried up from the symphysis pubis, suggests this procedure only as a substitute for distention of the bladder, with the sole object of raising the bladder, and not the peritoneum, above the pubes, and this only in cases in which it is not advisable to distend the viscus to a large size. Petersen, on the contrary, proposed his method as an essential part of every operation of suprapubic lithotomy, and for the distinct purpose of raising the peritoneum, after becoming convinced of its value by direct experimentation, and also by the result of two operations conducted in this way. Hence, it is clear that whatever merit attaches to this method belongs of right to Prof. Petersen; for, although he did not appreciate as justly as did Dr. Garson the relative parts played by the distention of the rectum and that of the bladder in this method, yet, his practical application of it, meeting with success at his own hands, has been imitated almost wherever the suprapubic lithotomy has been performed since 1880, and Petersen's method is now usually regarded as an integral part of the operation.

The most recent contribution to the literature of this subject is a valuable paper by DR. FEHLEISEN, of Berlin, "Ueber die Verschiebung der Harnblase bei der Tamponnade des Rectum," which appeared in Langenbeck's *Archiv für klinische Chirurgie*, Bd. xxxii. Heft 3, and in which can be found all that is needed to complete our understanding of the mechanism of this method, and to indicate what is the best way of carrying it out. Dr. Fehleisen's paper is illustrated by four large colored lithographs, each of which represents vertical sections of a body frozen after various injections of the rectum and bladder had been practised.

One of the plates shows the bladder distended with about 9½ ounces of fluid. Here the bladder is round, and, while it presents a surface several centimetres long above the level of the pubes, it is still covered in front by the peritoneum. The next plate shows the effect of distention of the bladder with only about 6 ounces, combined with distention of the rectum with about 15 ounces. Here the section of the bladder is more or less pentagonal—a shape which is due chiefly to the forcing forwards of its posterior wall by the distention of the rectum behind it—and the peritoneum has been pressed up so that it leaves

a clear space above the pubes about one inch and a half long. A third plate shows the result of an experiment intended to determine what share in the displacement of the peritoneum is to be attributed to the filling of the rectum—a point which Dr. Garson had previously investigated. The bladder was injected with as much fluid as both it and the rectum contained in the preceding experiment. Here we find, again, an almost round bladder, with the peritoneum descending in front of it, to within four-fifths of an inch of the pubes. The last plate shows the effect of filling both bladder and rectum with considerable quantities of fluid. Here the bladder contains about 13 ounces, and the rectum about 16 ounces, and the peritoneum is removed from the symphysis pubis to a distance of about 3¼ inches.

The demonstration of these experiments is complete, and there can be little doubt that Dr. Fehleisen suggests in his paper the best way to carry out the suggestions of Dr. Garson and Prof. Petersen, in recommending that, as preliminary to the cutting part of the operation of suprapubic lithotomy, the rectum of an adult shall be distended with from 14 to 16 ounces of fluid, and then the bladder injected with from 8 to 10 ounces, or exceptionally with 13½ ounces of fluid. The essential point in this way of conducting the distention, it will be seen, is that the rectum shall contain more fluid than the bladder. An incidental advantage of this method consists in the pressing forward of the fundus of the bladder, which facilitates examination of it, or operation upon it, in cases of tumor of the viscus.

But one thing remains to be mentioned in connection with this paper, and that is, that the writer suggests, instead of the use of a colpeurynter introduced into the rectum, that the distention be effected by introducing an œsophageal tube, over the end of which a condom has been slipped, and attached to the tube at a distance of three to four inches from the point. This is to be distended by injecting water through the tube, after it has been passed all the way up the promontory of the sacrum. The injection of the bladder can be effected through a catheter previously introduced.

The great merit of Petersen's method is that it removes what has always been a source of anxiety to those who are not very familiar with the history and statistics of suprapubic lithotomy. The fact is, that these precautions are not essential to a successful performance of the operation, and that wounding the peritoneum has been a very rare occurrence, even when the operation was done in the simplest and most informal manner. Dr. Dulles, who has made this operation the subject of continued study during the ten years which have elapsed since he published an analysis of 480 cases in *The American Journal of the Medical Sciences*, July, 1875, states that he has now collated about 750 cases, and that out of nearly 650 operations practised before Petersen's method was suggested, in only 19 was the peritoneum cut or burst, 1 of these cuttings being intentional, and that of the 19 patients, 11 recovered. It appears, indeed, from a study of a very large number of cases, that it is not difficult to avoid the peritoneum if due care be exercised. Nevertheless, we would recommend the adoption of the method of distending the rectum suggested by Garson and Petersen, and improved upon by Fehleisen, as encouraging those who are less sure than we are that it is not essential to safety. With it, and with after-treatment by drainage, or by suturing the bladder, where this can be properly done, as indicated in our issue of September 12, last, the suprapubic operation offers a fine field for the enterprise of American, as well as of other surgeons.

THE MASSACHUSETTS EMERGENCY AND HYGIENE ASSOCIATION.

THERE is no more wholesome indication abroad in the realm of public hygiene than the wide and practical interest taken in this all-important subject by the non-professional public. Individuals have, for a long time, been noted for their self-sacrificing labors in this direction; but of late, influential associations have been formed for the prosecution of the work on a broader basis than that of personal effort and for compelling a hearing, as can be done by an earnest body of prominent citizens so much better than when a single voice is crying in the wilderness. The excellent work done by the Manchester and Salford Society in England, and by the lectures on emergencies and nursing in New York and in this city under the auspices of the charity organizations, the county medical, and similar societies, is proof of the recognition of the need of the hour, and of the value of united effort. No effort of theirs, however, is more comprehensive and far-reaching than that of the Association, the name of which heads this article.

In 1883 the Women's Educational Society, a voluntary body of active, unselfish women, began courses of lectures, seven of which were free, and three to paying classes. The next year the number went up with a leap to twenty-five. It was then seen that the work was becoming so large and important, that the old Society gave way to a new and broader one—The Massachusetts Emergency and Hygiene Association. This Society has planned a splendidly useful work on a broad scale. It proposes to form branches throughout the State; to give instruction to those who can pay a fee; to give free lectures to railroad employés, mill operatives, stevedores, and the like; to the police, the militia, and the fire department; to missions and public institutions, and to teachers and the more advanced pupils in normal schools,

and such others as may be interested in the public health. It speaks well for the intelligence of the community, for the unselfishness of the promoters of the schemes, and for the generosity of the instructors, that such a broad purpose should be entertained, and has been successfully initiated.

Their first publication, as we judge it to be, consists of *Six Lectures upon School Hygiene*, forming a book of 200 pages, the contents of which are most agreeable and instructive reading. As a book it is valuable, but far beyond this value is the interest it has already awakened among the very class it is intended to reach. As lectures delivered to teachers, the addresses must have carried weight and given an impetus to school hygiene, that no mere book issued to an absorbed and inattentive public could possibly do.

Dr. Frank Wells, Vice-President of the Association, opens the book in an address on the general subject of school hygiene, and later gives another on drainage. Dr. F. W. Draper's lecture is on heating and ventilation; Dr. C. H. Williams's on the use and care of the eyes; Dr. G. B. Shattuck's on epidemics and disinfection; and Dr. C. F. Folsom's on the relation of the public schools to disorders of the nervous system.

The book should be read by every school-teacher in the land, for it will not only give information, but will stimulate every such reader to a higher and better aim as a teacher to develop and care for both mind and body—the body as a necessary factor in mental growth. Dr. Folsom, we think, has been especially happy in a nice discrimination as to the question of over-work, particularly in girls, balancing with judicial skill the assertions on both sides of this much vexed question.

Other cities than Boston may well imitate such powerful voluntary associations, and convert what is now useful but desultory work into a systematized effort of the greatest value and power.

IMPERFORATION, AND SUBSEQUENT GREAT DISTENSIBILITY OF THE HYMEN.

IN the *Revue Medicale* for October 10th, an interesting case of congenital atresia of the hymen, with subsequent great dilatability of this membrane, is given.

The subject was twenty-four years of age, married, but childless. When fourteen years of age the manifestations of the change from girlhood to womanhood occurred, except that the monthly flow failed, though there was at regular periods a decided menstrual molimen. A hypogastric tumor was manifest, increasing somewhat at each menstrual effort, but diminishing slightly in the intervals. The symptoms continued until she was twenty-one years old, when the abdominal tumor had increased until it equalled in size that of pregnancy at term. A puncture was made in the hymen, and the blood accumulated in the uterus and vagina was discharged, with entire disappearance of the abdominal tumor.

It is worthy of remark that there was a notable tolerance of accumulated menstrual fluid shown in this case. It is not unusual, as pointed out by Bernutz, for a fatal result to occur in the second or in the third year after the beginning of the menstrual efforts. This fatal result is caused by a general peritonitis excited by a portion of the collected fluid passing through the oviducts into the peritoneal cavity. Nevertheless, though in this case menstrual collection continued for seven years without this very dangerous accident occurring, Hervez de Chégoin, according to Bernutz, has reported one in which ten years elapsed. But such long delay as occurred even in the first case is not to be expected, and hence a temporizing practice is utterly forbidden.

Another interesting fact in connection with the case is the safe result from a simple puncture of the hymeneal membrane. While some advocate such puncture, with gradual evacuation of the menstrual accumulation, others, foremost among whom is Emmet, advise free incision with thorough washing out of the uterine cavity; it is important, therefore, to know the result of one or of the other method of operating, that when a sufficient number of facts is collected we may adopt that practice which has been proved the safer.

Shortly after the operation above stated the subject married, but was childless. As there was no obstacle to coition, as digital examination was readily made, and as a speculum could be easily introduced, it seemed improbable that the sterility which was found to exist was due to any mechanical obstacle. But vaginal examination with the finger was unsatisfactory in this, that the cervix could not be directly touched, for there seemed to be a thin membrane intervening between it and the finger. This membrane proved to be the hymen, which furnished a complete covering to the finger as it was pressed toward the vaginal vault. Doubtless such remarkable stretching of the hymen had been rendered possible by continued copulation, the result having been gradually attained. Excision of the hymen was followed by fecundity.

REVIEWS.

HOW TO DRAIN A HOUSE. PRACTICAL INFORMATION FOR HOUSEHOLDERS. By DR. GEORGE E. WARING, JR., M. Inst. C. E., Consulting Engineer for Sanitary Drainage. 12mo. pp. 222. New York: Henry Holt & Co., 1885.

THE author of this timely little book commences his preface with the statement that drains in modern houses are probably the most serious enemies with which struggling humanity has to contend, but that they are never

necessarily antagonists to human health. Mr. Waring claims that a country town would be vastly improved in sanitary condition by the substitution of even imperfect sewerage for the old-fashioned foulness of air, soil, and drinking-water resulting from cesspools and outside privies. The drainage system is, however, he contends, a trustworthy ally in our hourly battle against the causes of disease, only so long as the woman of the house holds it under close and careful supervision.

Our author describes concisely, and, as a rule, clearly, the precautions which should be taken in draining the cellar and laying the foundation walls of a house, the construction of the main drain and soil-pipes, the arrangement of fresh air inlets, and other details of sanitary work. In regard to traps, he recommends Putnam's as effective, withstanding siphonage, and being substantially self-cleansing. He expresses a decided preference for his own invention in water-closets, which he calls the "Dececo."

Mr. Waring makes a curious blunder in the enunciation of his aphorism on p. 21: "Look out well for the health-rate, and the death-rate will lose its significance." We feel assured that, if our author will take time to ponder profoundly the problem, he will conclude that in those instances where his rare engineering skill has enabled him to diminish the sickness and mortality from filth disorders to a minimum, the reduced death-rate is *most significant* of his praiseworthy success.

LEHRBUCH DER PHYSIOLOGIE FUR AKADEMISCHE VORLESUNGEN UND ZUM SELBSTUDIUM. BEGRÜNDET VON RUD. WAGNER, FORTGEFÜHRT VON OTTO FUNKE, neu herausgegeben von Dr. A. Gruenhagen, Professor der Medizin. Physik an der Universität zu Königsberg. I. Pr. Siebente neu bearbeitete Auflage, mit etwa Zweihuntertundfünfzig in den Text eingedrückten Holtzschnitten, 1te, 5te Lieferung. Hamburg and Leipzig: Leopold Voss, 1884–5.

TEXT-BOOK OF PHYSIOLOGY, commenced by Rudolph Wagner, continued by Otto Funke, and revised by Dr. A. Gruenhagen, Professor of Medical Physics in the University of Königsberg. Seventh edition. With about 250 woodcuts. Hamburg and Leipzig, 1884–5.

This great book, having attained a seventh edition, is, of course, sturdily independent of either praise or blame from the pen of any foreign reviewer. It occupies in the German empire a position similar to that of Carpenter among physicians and students in English-speaking countries, and may justly claim to be no mere colorless compilation of dry facts, but a vivid presentation of the living and breathing science of physiology. Its present distinguished author addresses himself not only to the medical pupil and practitioner, but also to students of biology, and even aims to win from among general readers a circle of interested listeners to his teachings.

The first division of the book is devoted to the study of tissue changes in the living organism, and in it are exhaustively discussed the physiology of digestion, absorption, sanguinification, and excretion. In this section the blood is considered in its microscopical, chemical, and physical relations, including the mechanics of the heart and vessels; also the movement of the gases of the blood as dependent upon respiration. The second part is appropriated to a consideration of the nervous system, its share in the production of muscular movements, and the control of secretion in its adaptation to the varying wants of the animal economy. In the third section is to be discussed the functional activity of that group of organs having for its peculiar office the wonderful yet hourly miracle of reproduction—that sublime process in which new individuals are formed from minute portions of two parent organisms, which are already developed to their perfect condition—thus handing down in continuous succession the vitality of the race.

In comparing this excellent work with the manuals adopted as text-books in English and American colleges, we are at once impressed with the relative paucity and inferiority of the illustrations which constitute such important aids to a student of this abstruse, yet fascinating department of biology. Certain of the woodcuts are so exceedingly simple as to be of little value; and Fig. 2, professing to exhibit the absorption spectrum of oxhyæmoglobin, totally misrepresents the comparative depth of tint possessed by the two well-known bands in the green characterizing this element of blood.

SOCIETY PROCEEDINGS.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Stated Meeting, October 1, 1885.

THE PRESIDENT, B. F. BAER, M.D., IN THE CHAIR.

DR. WHARTON SINKLER read a paper on

THE DIFFERENT FORMS OF PARALYSIS MET WITH IN YOUNG CHILDREN.

The most frequently met form is infantile spinal paralysis, or *poliomyelitis anterior*. This term indicates the pathology of the disease, which is an inflammation of the nerve cells of the anterior horns of white matter of the spinal cord. This affection may come on at any period of life, but is generally seen in children and usually at the age of two years. The children are generally strong and apparently healthy and the paralysis is sudden in its onset. Fully two-thirds of the cases I have seen have been attacked in the summer months, hot weather and teething seeming to be predisposing agents. Dr. Barton, of Manchester, Eng., reports that of fifty-three cases in which he noted the time of onset, twenty-seven occurred in July and August. The attack is preceded by fever of greater or less intensity, with pain in the head and limbs, with general soreness when moved or lifted. After a few days, paralysis more or less complete occurs, but in a few days a regression of the paralysis from some of the affected parts occurs. Sensation is undisturbed. Atrophy of the muscles is soon apparent—in fact, the paralyzed portion stops growing for a time. The temperature of the affected portion is low and the skin is blue and mottled, but there is no tendency to ulceration, and wounds or scratches heal readily. The skin and tendon reflexes are lowered or abolished in the affected limbs. At first response to the faradic current is lost and later on the galvanic current produces but little muscular contraction except when a powerful current is used. When atrophy has set in the reaction of degeneration is seen. Most of the

cases of clubfoot are the result of infantile palsy. Deformities of the upper extremities are rare; this disease differing in this respect from cerebral palsies. The exact causes of infantile palsy are unknown. Overfatigue often precedes an attack; sudden chilling is considered by Seguin to be a frequent cause.

The *prognosis* as to perfect recovery is only moderately good. In many cases the most faithful treatment fails to restore the paralyzed muscles, but in almost every case we can expect more or less improvement.

In the early stages of the paralysis after the subsidence of the fever, the treatment should consist of mild stimulation to the spine; ergot and small doses of bromide of potassium should be given internally. Later in the disease, iodide of potassium should be given instead of the bromide. When the palsy is established, electricity and massage are the means to be depended upon. They must be persisted in for months or even for years. Internal treatment is of little or no value, unless there is some failure in the general health of the child.

Spasmodic paralysis, as seen in children, is of two varieties: when of primary spinal origin, or when there is a descending degeneration of the cord from a primary cerebral lesion. Sometimes there seems to be a congenital defect in the motor tracts of both brain and cord. In the spinal variety, there is often seen, soon after birth, rigidity of the limbs, at first this is only occasional, but, as the child gets older, every effort to move a limb causes muscular rigidity in it. The child does not attempt to walk until three or four years of age. Then, when it is supported under the arms and it tries to stand or to walk, the movements are very peculiar and characteristic. The feet are extended and inverted, so that the child rests on the toes. The knees are strongly adducted and lock together, so that the legs become entangled. By degrees the child becomes able to walk with the aid of apparatus or some form of crutch. The hands and arms are often affected, and every effort causes muscular rigidity to come on. The mind is unaffected in these cases and the speech may be distinct although it is often very defective. Sensation is unimpaired, and the patella reflex and ankle clonus are exaggerated. There is no wasting of the muscles. By these symptoms we infer that the disease is localized in the lateral columns; but exactly what is the nature of the lesions we do not know, for no post-mortem examinations have been made in these cases. The cause is unknown. Hamilton found three of seven cases which he had collected were premature births, Adherent and contracted prepuce have been thought by some to be caused by reflex influence of the spasmodic paralysis, but operation has not given relief. The treatment should consist of massage, galvanism to the spine, ergot, and cod-liver oil. Fluid extract of conium may be given to allay spasm. In some cases great improvement follows this treatment.

Even when we can do no positive good to the limbs, very much can be effected by the aid of apparatus. Properly adjusted braces to the legs will enable the child to walk on crutches or in a Darrach wheel-crutch.

There is a form of spasmodic spinal paralysis in which the child is imbecile. In these cases there has probably been congenital defect in cerebral development. The head is small and there is no evidence of intellect, often nystagmus is present.

Paralysis from Pott's Disease.—Paralysis of the lower extremities may result from caries of the spine. The lesion may be either a meningitis or a myelitis. If meningitis alone, there are considerable pain and contraction of the legs. Generally there is a transverse myelitis. The symptoms are numbness and pricking of the legs with loss of sensation, gradually increasing loss of power with wasting of the muscles, incontinence of feces with retention or incontinence of urine. Sometimes there are ulcers over the sacrum or on the limbs.

The indications for treatment are evident. An apparatus which will take the weight of the body from the spine is necessary, and is sometimes sufficient of itself. Frequently, however, the application of the actual cautery over the spine brings improvement in the symptoms when apparatus has done no good. Massage and electricity should be used to restore the atrophied muscles.

Paralysis from rachitis and diphtheria is seldom complete. The former is often spoken of as the pseudo palsy of rickets. Negro children, who are very subject to rachitis in cities, often have rachitic paralysis. The child at three or four years is unable to walk or stand. Sometimes it has not sufficient muscular development to sit upright. It can move every limb and has no loss of sensation, but has no power. Cod-liver oil and massage bring about the most satisfactory results in these cases.

Diphtheritic paralysis usually begins in the muscles of the soft palate and pharynx, and extends to the extremities. It is generally bilateral and incomplete, but I have seen a case in which it was hemiplegic. It is considered peripheral in character and is believed by some to be connected with the altered condition of the blood consequent on the original attack. Diphtheritic paralysis is rarely fatal and lasts in most cases only a few weeks, although it may continue for months. Strychnia and electricity are the means to be employed, and the case usually responds promptly to these remedies.

Pseudo-hypertrophic paralysis is a rare affection, but is of much interest. The disease belongs almost exclusively to infancy. It is characterized by muscular paralysis with great increase in the bulk of the muscles. This enlargement is due to fatty deposits, while the muscular tissue proper is atrophied. The affection begins with weakness of the legs, a peculiar balancing of the trunk and separation of the legs in walking. The shoulders are thrown far back in standing and walking. There is great difficulty in getting from the sitting to a standing position. Later in the disease the muscles become wasted and shrunken, and the general health begins to suffer. Death results from implication of the respiratory muscles. The skin is mottled like a piece of castile soap. The tendon reflexes are abolished and electro-muscular contractility is impaired. There is often a greater or less amount of mental weakness. There is no loss of power over the bladder and rectum, and sensation is not affected. Heredity influences the disease, which is slow in its progress, but the course is steadily downward.

Friedreich's disease is still more rare than the pre-

ceding. It is practically locomotor ataxia in childhood. There is evidenced here also a hereditary predisposition, and the female children seem most liable.

Cerebral Palsies.—Hemiplegia may result from some injury at the time of birth, either from the forceps or from the pressure of a prolonged labor. A child may be born hemiplegic after a perfectly natural and easy labor. Under these circumstances we must regard the paralysis as the result of imperfect cerebral development. Hemiplegia under these circumstances is generally permanent. The side affected grows less rapidly than the other. The flexors of the arm and hand are usually contracted. The leg becomes rigid in the act of walking.

Convulsion is almost always associated with cerebral paralysis, either immediately preceding the attack or occurring soon after. The convulsive movements are most violent on the side which is subsequently paralyzed. The child will have an idiotic expression and speak indistinctly, but its friends think it intelligent. The convulsions are liable to return when the child is older, and then assume an epileptic form. The walk is peculiar and is called the *spastic* gait. The patient plods along looking as if he were about to pitch forward. The affected limbs are smaller and shorter, the growth of both bone and muscle being affected. In the choreic variety, where the arm is in constant motion, the muscles may become hypertrophied, but the bone remains short.

Prognosis.—As a rule, the prospect of recovery is bad. Even if the patient gets well, the hemiplegic side remains awkward.

Treatment.—Cod-liver oil and massage, which always relaxes the contracted muscles. The affected limbs should be used as much as possible.

DR. HARRIS inquired whether Dr. Sinkler had ever observed any hereditary disposition to convulsions and cerebral paralysis.

DR. SINKLER replied that the hereditary influence was decided even when no convulsions occurred.

DR. R. P. HARRIS read a report of the autopsy upon Mrs. Reybold, from whom two living children had been removed by

CÆSAREAN SECTION

by Professor Gibson, of the University of Pennsylvania. The superior strait was reniform; conjugate diameter, one and three-quarter inches; transverse diameter, five and a quarter inches. The malformation was due to rachitis and injury from a fall in her second year. A full report of the history of the patient, the operations, and the autopsy, is to be found in the *The American Journal of the Medical Sciences*, October, 1885, p. 422.

DR. E. E. MONTGOMERY reported the following case of

OÖPHORECTOMY:

Mrs. L., of Columbia, Pa., æt. 36 years; married ten years; pregnant five times, the last four years ago; was brought to my notice by Dr. A. F. Chase. Her health has been bad since her last confinement. First menstruation at twelve and a half years, regular and very free for one and a half years, when she fell, producing pelvic distress; after which, for seven years, the flow was very scanty, lasting but one or two days, and accompanied by excruciating pain. She improved somewhat after marriage. Her first conception was followed by so much nausea, vomiting, and anæmia that her physician advised and induced an abortion. She is now regular as to time, but irregular as to quantity; it is preceded by an excruciating pain for two days, which continues until the flow disappears; she also has severe pain in the head. She is very nervous at all times, but this is much intensified during the period. Pain is more marked in the left inguinal region and down the corresponding limb. Coition and vaginal examination are very painful. The uterus is enlarged and painful, tender on pressure over both ovaries. Local uterine treatment had been kept up during the entire four years, with no relief. Trachelorrhaphy had been performed. Ovariotomy was advised. September 19, 1885, she entered my private hospital, and, assisted by Drs. W. H. and C. B. Warder and E. Eshleman, the uterine appendages were removed. The left ovary was composed of a number of cysts, the largest of which ruptured while adhesions were being separated. The right ovary was not enlarged, but it was removed to insure relief. The wound was closed with silk-gut, and dressed with sublimated gauze and absorbent cotton. There was no shock. The highest temperature reached was 101.6°, at midnight of the 20th, and it became normal on the 22d. Sutures were removed on the eighth day, and the wound redressed for the first time. It had united throughout, and there was no irritation from the sutures. The effect upon her general health remains to be determined.

DR. MONTGOMERY also reported the following case of

SUPRAVAGINAL REMOVAL OF THE UTERUS AND BOTH OVARIES FOR FIBROID TUMOR.

Ann U., æt. 27, was brought to me by Dr. F. H. Boysen, of Egg Harbor City, with the following history: Her menses from the beginning occurred every three weeks and were free an entire week. During the last four years they have occurred every two weeks and are attended with pain in the pelvis and down the limbs, and severe pressure on the bladder, causing frequent urination and several times necessitating the use of the catheter. Dr. B. had diagnosticated fibroid tumor, which my subsequent examination confirmed. The tumor was the size of a child's head, filling up the pelvis and apparently arising from the anterior wall. The examination led me to believe that the bladder was adherent over the anterior surface and would render the removal of the tumor unsafe. I suggested the removal of the ovaries. She entered my private hospital September 15, 1885, for that purpose. Drs. W. H. Warder, Boysen, and Martin assisted; Drs. C. B. Warder and Stultweather were present. An incision three inches long was made, and finding the tumor free from the bladder, with cervix sufficiently long to serve for a pedicle, the incision was extended to within an inch of the umbilicus above and symphysis below, and the tumor with some difficulty withdrawn. In the absence of a Tait's clamp, which had been ordered some days before, the pedicle was constricted by a wire-écraseur and the tumor with the ovaries removed. The pedicle was then transfixed with two steel pins and tied in three sections with strong silk thread. The peritoneum was

fastened to the pedicle below the ligatures, and the wound closed with silk-gut sutures, the pins holding the stump outside. The wound was dressed with sublimated gauze and absorbent cotton. The operation was followed by some shock (temperature 97.4°, pulse 104), from which she soon rallied. She complained greatly of pain. A half grain of morphia had been given by suppository, and three hypodermic injections of morphia, one-quarter grain each, were given during the afternoon, before the pain was relieved.

At 3 A. M. of the 24th I was called by the nurse, who reported bleeding from the stump. Three ounces of blood had been lost. By aid of Dr. Warder, a Wells's clamp was applied below the pins, apparently controlling the hemorrhage; but it recurred later in the day from the angles and from beneath the clamp. By this time the Tait's clamp had arrived, and the patient was etherized, the lower three sutures removed, the pedicle drawn up, the clamp applied so as to control it completely, and the wound again closed. The wound had united throughout. Temperature had reached 100.6° at 9.30 P. M. The highest, subsequently, 101.6°, was in the afternoon of the 25th, and it became normal on the 28th. Upon removing the dressings, on the 27th, some pus welled up about the pedicle. As the skin was irritated, the dead pedicle was cut away, until the clamp slipped off. There resulted, of course, considerable retraction of the stump, but the sloughed tissue is now nearly cleared away. The patient suffers no pain or discomfort; temperature normal. The tumor was situated in the anterior wall and fundus of the uterus, and projected into the uterine cavity.

DR. PARISH remarked that removal of the ovaries had given such good results in cases of uterine fibroids, and was comparatively so free from danger, that he would like to hear from Dr. Montgomery his reason for his choice of operation.

DR. MONTGOMERY replied that the tumor filled the pelvis and pressed upon the bladder and rectum, causing great and constant distress. As diminution of the size of the fibroid tumor is not a certain result of oöphorectomy, and as all the circumstances were in favor of the major operation, he decided upon it as the best one.

MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, October 23, 1885.

THE PRESIDENT, THOMAS G. RODDICK, M.D., IN THE CHAIR.

DR. WM. GARDNER exhibited the following pathological specimens:

(1) A UTERUS SEPTUS WITH ATRESIA AND HÆMATOMETRA OF THE LEFT CHAMBER.

This specimen was exhibited at the meeting of the Canada Medical Association, at Chatham, Ont., and the description of it has already appeared in THE MEDICAL NEWS.

(2) A DERMOID OVARIAN CYST,

removed 15 days previously from a woman 47 years of age, some years past the menopause, and the mother of several children. The tumor was about the size of a large adult head and contained a grayish-yellow ochre-colored fluid, a bunch of hair, one tooth, and a plate of bone in the cyst wall. It had been of slow growth, causing very little in the way of symptoms, and was removed because such patients are in constant danger of peritonitis, bursting or suppuration of the cyst, and of axial rotation with consequent gangrene and hemorrhage within the cyst. Axial rotation of the tumor, Dr. Gardner remarked, is an accident to which dermoid cysts are especially prone. The patient made a good recovery.

(3) A SMALL SOLID OVARIAN TUMOR OF THE LEFT SIDE,

removed a week previously from a married woman, æt. 56, the mother of several children and five years past the menopause. The tumor measured 3 by 2½ inches, and was very hard and heavy. It contained a cyst as large as a small hen's egg, which was accidentally ruptured during the operation. The cut surface of the tumor was very firm, not markedly fibrous, and of a pale yellow color. The disease was limited to the ovary. The pedicle was slender, easily ligatured.

There was general enlargement of the fundus of the uterus, which also presented a nodulated projection. De. Wyatt Johnston had examined the tumor microscopically and found in the growth two different structures: the outer portion, which formed the bulk of the tumor, consisted of epithelial cells arranged regularly in circles and embedded in a matrix of fibrous tissue. The cells are uniform in size and do not infiltrate surrounding parts.

The central portion of the tumor had the same non-infiltrating epithelial cells, but the matrix consisted entirely of embryonic connective tissue, with abundant young spindle cells and nuclei. Dr. Johnston regards the tumor as non-malignant, for from its general appearance it looked as if the younger portion might be maturing into the old rather than that the more mature was having sarcomatous tissue added to it.

Dr. Gardner went on to say, that solid ovarian tumors are exceptionally interesting because of their rarity and frequent malignant nature; whatever this nature, if there be no evidence of infiltration of surrounding tissue, they ought to be removed. The propriety of this can only be determined by abdominal section. There is ample evidence, from the experience of Sir Spencer Wells and others, that unmistakably sarcomatous tumors of the ovary may be removed without recurrence for many years or indefinitely.

EXTIRPATION OF THE KIDNEY.

DR. HINGSTON exhibited a kidney which he had removed last August from a young girl aged 18. She had for some time complained of severe pain in the region of the left kidney and came to Dr. Hingston for relief. On examination the kidney was found enlarged and freely movable. Removal was decided on and the operation was performed. The lumbar incision was employed. No difficulty was experienced in the operation, there was no hemorrhage and the organ was easily enucleated. The girl made a rapid recovery. On examining the removed kidney it was found to be sacculated and filled with creamy fluid. The pelvis was filled with fibrous tissue and the ureter was occluded, being merely a fibrous cord. No vessels could be seen entering the hilus. It was probably a case of disorgani-

zation of the kidney due to congenital occlusion of the ureter.

EXTIRPATION OF KIDNEY FOR CALCULOUS PYELITIS.

DR. FRANCIS J. SHEPHERD showed a kidney which he had removed from a woman some five weeks before. The history of the case is as follows:

Eliza T., æt. 24, married, was admitted into the general hospital under Dr. Wilkins, on the 10th of August, 1885, suffering from emaciation, general weakness, and a painful swelling on the left side of the abdomen. Family history threw no light on the case, no consumption. Had herself always been healthy up to nine months before entrance into the hospital; at that time she began to lose flesh and to have pains in left side of abdomen which occasionally extended down to the thigh, but these were never severe. Has had four children and after birth of last child, five months ago, first noticed a tender swelling or rather fulness on left side of abdomen; at this time she noticed her urine was milky and that a deposit was thrown down when it was left standing for a short time. Had never passed any blood or had attacks of renal colic, nor had she ever had chills or sweatings.

When admitted into the hospital she was in a condition of extreme emaciation and very weak, pulse was 140 and temp. 100° F. She had no cough and her lungs were probably healthy. She had, however, frequent and painful micturition and the urine contained large quantities of pus; some days, however, it would be quite clear. On examining the abdomen the superficial abdominal veins were found much enlarged and a distinct fulness was seen in the left lumbar and iliac regions. Palpation revealed a large tumor which extended across the abdomen to within one inch of the umbilicus, above it reached as high as the spleen, and below could be felt reaching down as far as the brim of the true pelvis. By bimanual palpation the tumor could be grasped between the hands and moved slightly, no fluctuation could be distinctly made out. The tumor was very tender on pressure.

Towards the latter end of August, Dr. Wilkins transferred the case to the surgical wards under Dr. Shepherd. At that time her condition was better than on entrance and she had gained flesh. The tumor had not increased in size since she had been under observation, but her pulse continued rapid and her temperature ranged from 99° to 101.5° and other symptoms were much the same.

After a consultation with his colleagues Dr. Shepherd decided to explore the kidney, and to perform either nephrotomy or nephrectomy, as would be determined by the condition of affairs.

On September 17th, the patient having been etherized, the right kidney was first examined by palpation and made out easily to be normal in size and apparently healthy; it was freely movable. An incision was then made, as for colotomy, in left lumbar region, between the last rib and crest of the ilium, commencing at the outer edge of the erector spinæ muscle, and extending outwards for some five inches, the kidney tumor was soon reached and found to be freely fluctuating; it was aspirated and some stinking pus withdrawn; a needle was passed in and soon came in contact with a calculus. The tumor, which was somewhat larger than a child's head, was now freely incised and a large quantity of foul-smelling pus evacuated through the opening thus made. The finger was introduced and the pelvis was found filled with a large calculus; owing to the disorganized state of the kidney and the bad general condition of the patient it was decided immediately to extirpate the kidney—the upper end was first freed without difficulty, and then the lower end and posterior portion. These latter portions were freed with some difficulty, especially the lower end, which reached far down towards the true pelvis. To enable the hand to get in freely, the original incision was enlarged by incisions above and below at right angles, and several more incisions made into some of the pus-filled saccules. Now, the kidney was easily delivered through the wound and the vessels entering the hilus tied with silk and divided. The ureter, into which a portion of the calculus extended, was then ligatured and divided, and after cutting some strands of cellular tissue with scissors the kidney came away. Whilst freeing the kidney there was considerable venous hemorrhage from the torn vessels at upper and posterior part, which, owing to the presence of the tumor, was much engorged. This was stopped by sponge pressure.

The large cavity caused by the removal of the kidney was quickly filled up by the intestines pushing forward the peritoneum. The cavity was washed out with bichloride 1 to 2000, and a large drainage tube introduced. The wound was brought together with catgut sutures and dressed with iodoform powder and sublimate jute pads.

The patient, although suffering considerably from shock, recovered well from the operation. She had some vomiting, which was controlled by champagne, and for the first twenty-four hours had brandy and beef-tea per rectum.

During the first night there was considerable oozing, and the dressings had to be changed the second day. At this dressing the drainage tube was much shortened. More than thirty ounces of urine were passed the day after operation. Her pulse, which after the operation was very weak and 160, soon fell to 120, and temperature after first day never reached 100° F. The woman rapidly recovered, and the wound with these dressings healed by first intention, except at the point where drainage tube had been. At the end of the third week she was able to wheel herself about the ward in a chair, and during the past week has been walking about. Her appetite is good and she is rapidly regaining flesh. The daily amount of urine excreted is from thirty-five to forty ounces.

The kidney was now exhibited and was seen to be of large size and composed of a number of saccules which had contained pus; the pyramidal portion had all disappeared, and the cortex was about quarter of an inch thick. The pelvis was filled with a large oxalate of lime calculus which extended down into the ureter, almost completely blocking it up. In one of the saccules at the lower end of the kidney was a small round calculus the size of a marble. Dr. Shepherd said about a pint of pus had been removed from the kidney.

DR. FENWICK congratulated Dr. Shepherd on the success of his case, and said that it had never been his fortune to remove a kidney, although he had many times seen it whilst performing colotomy, and had occa-

sionally cut down on it for abscesses in its neighborhood. He had always thought that there was not much difficulty in the operation, and that if the patient survived the shock the prognosis as to recovery was good.

DR. HINGSTON asked why Dr. Shepherd did not remove the stone and leave the kidney, and why he cut the quadratus lumborum muscle.

THE CHAIRMAN said he had been present at the operation, and thought that Dr. Shepherd had acted properly in removing the kidney, as the woman's condition was such that she could not have stood the drain which must have still gone on had the stone merely been removed; besides, removal of the stone could not have been effected without further serious injury to the organ. He was pleased to find how much more room was obtained by making incisions at right angles to the first one, and how easily the kidney was delivered when this was done. He himself had never performed nephrectomy, though some two years ago he had performed nephrotomy in a case of scrofulous pyelitis; the patient was relieved by the operation, but subsequently died of phthisis.

DR. SHEPHERD, in reply, said that he did not think removal of the stone could have been easily accomplished without so much injuring the kidney as to render it useless; as it was, the kidney was so disorganized that he did not think it worth preserving, and the woman's condition before operation was so bad that he thought complete removal of the source of disease was by far the best procedure. He had cut the quadratus lumborum muscle so as to get more room posteriorly. He always did so when performing colotomy, and it never interfered with good result of the operation. Dr. Shepherd considered the operation more dangerous than difficult.

DR. TRENHOLME reported that the two cases of

EXCISION OF THE UTERUS

he had brought before the Society some weeks ago were doing well (one excision having been for uterine fibroid, and the other for cancerous disease).

CORRESPONDENCE.

BANDAGE FOR THE FIXATION OF THE HUMERUS AND SHOULDER GIRDLE.

To the Editor of THE MEDICAL NEWS.

SIR: Dr. Cabot's note in your issue of October 31st, on the bandage for fixation of the humerus and shoulder girdle, described by Dr. Dallas, leads me to say that in my experience the object of the bandage, so far as it relates to making "pressure upon the top of the shoulder and at the same time driving the humerus strongly up toward the socket," can be very effectually and, I think, more conveniently attained by a strip of adhesive plaster passing from a point between the shoulder blades, over the top of the shoulder, down the front of the arm, under the elbow, up the back of the arm, and over the shoulder again, to the chest in front. I have used this dressing in dislocations of the acromial end of the clavicle, fracture of the clavicle close to that joint, and in fracture of the humerus high up without displacement, and have been entirely satisfied with its action. A case of the first-named injury successfully treated in this manner was presented to the New York Surgical Society about two years ago.

Very truly yours,

LEWIS A. STIMSON,

NEW YORK, 34 EAST THIRTY-THIRD ST.,
November 2, 1885.

THE CARE OF THE PERINEUM DURING LABOR.

To the Editor of THE MEDICAL NEWS.

SIR: In your report of the proceedings of the late meeting of the American Gynecological Society (issue of October 3) Dr. T. A. Reamy, of Cincinnati, contributed a paper upon the care of the perineum during labor, in which he proposes to protect it by a "towel or bandage ten inches wide and forty or fifty inches long, carried around the buttock of the patient and over the hemisphere produced by the bulging perineum, with the upper edge on a level with the fourchette, and the ends given to assistants, who are instructed to make traction during the pain, in the manner the accoucheur may direct."

This procedure is referred to as being wholly new, and certainly it has not been described in any text-book or journal that I have been able to consult, but in the address in Obstetrics at the meeting of the Medical Society of the State of Pennsylvania, May, 1884, I referred to a method of protecting the perineum during labor, based upon precisely the same principles, though differing slightly in detail.

I quote from the address as published in the *Transactions:*

"To carry out the points made by Playfair and Goodell, viz., to relax the tissues of the perineum, I have recently used a towel about four feet long, folded lengthwise to a width of six or eight inches, passed in front of the pubes and over the trochanter, the free ends secured by two strong safety pins, over a firm pad resting against the os coccygis and anal orifice. The effect of this is to crowd the surrounding tissues in the direction of the vulvar outlet, securing all the relaxation that is possible, at the same time keeping the head pressed towards the pubic arch. The action of this pad and band is pleasant to the patient and effectually protects the coccyx from injury, which, as is well known, is often the cause of that most serious malady, coccygodynia. At the moment of greatest distention, the action of the band should be aided with the left hand of the accoucheur, while the other resists the too rapid advance of the head, by direct and firm pressure."

I am not surprised that my views had not met the eye of Dr. Reamy and others who participated in the discussion, for papers once in the *Transactions* are securely entombed. Yet, as a matter of history, I think it right to call the attention of your readers to the views advanced in that address.

Respectfully,

JACOB PRICE.

WESTCHESTER, PA., October 21, 1885.

TYPHO-MALARIAL FEVER.

To the Editor of THE MEDICAL NEWS.

SIR: In THE MEDICAL NEWS of September 13, 1884, Dr. R. Bartholow had an article upon typho-malarial fever. It was my intention at that time to reply to Dr. Bartholow and treat the subject fully, but various causes combined to prevent the consummation of my desire, and only a preliminary note is here presented. As bearing upon the question so positively settled in the closing sentence of that communication, I wish to present for consideration some facts concerning the malarial fevers of the far West, intermittent and continued, as they exist along the slopes of the backbone of the continent—*i. e.*, the Rocky Mountain Range, its spurs and table lands.

Dr. Bartholow lays down the following propositions, which I alter somewhat from their arrangement in his article: "Typhoid is the fever of old, of cultivated countries and dense populations; malarial, of new countries and sparse populations.

"Typical typhoid is capable of many modifications and clinical variations, under climatic and other conditions, but its morbid anatomy *never* varies. There is no special type of fever entitled to the name typho-malarial."

In reply to these assertions, I will state that the continued form of the so-called "mountain fever" is a continued remittent fever, resembling typical typhoid in its clinical history; but wanting the typical and clinical course of pure typhoid; each period not corresponding to a certain degree of fever, therefore the diagnosis cannot always be made from the fever course. Its duration is from two to five weeks, occasionally longer. It is a fever of *new* and *sparsely populated* countries; its habitat, aptly expressed by its popular name, is in the mountains and mountain valleys, at varying altitudes, where the soil is dry and rocky, with no subsoil water, and where it is utterly impossible that there should have been any contamination of the surface ground by typhoid germs, within the memory of the races now peopling this continent. It prevails simultaneously with the intermittents, and apparently is contracted under the same conditions. It attacks, chiefly, those persons outside of large settlements, such as wood-choppers, prospectors, teamsters, ranchmen, etc. It is also occasionally found in the towns, but those whom it there attacks have usually passed through a period of extra-mural exposure.

The morbid anatomy of "mountain" fever *never varies*, and microscopically is that of pure typhoid, *i. e.*, infiltrated mesenteric glands, enlarged spleen, with ulceration of Peyer's patches. This disease first came under my professional observation in 1877, and in that year I made my first autopsy of a case of mountain fever. Since that time exceptional opportunities have been accorded me for observing and treating the disease, and I have made thirty post-mortem examinations of the viscera of patients dead of this malady.

If Dr. Bartholow is correct in his statement that typhoid fever "is the fever of old, of cultivated countries and dense populations; unchangeable in its morbid anatomy, and that this morbid anatomy is an infallible proof of this disease;" then, as a resultant of my own experience, having, in the last five years alone, treated nearly four hundred cases of mountain fever both in hospital and private practice, invariably finding, the same post-mortem lesions as exist in the "pure typhoid of old settlements," I am forced to the conclusion that either typhoid fever is *not* essentially the disease of old communities and dense populations, and does not always originate there; or, that there is a disease, in many of its clinical manifestations, closely resembling typhoid, presenting identically the same pathological appearances, which has its origin and home far from towns and settlements. The doctrine of descent and development is as applicable to the microörganisms causing disease, or to disease considered as an entity, as to any part of the animal or vegetable kingdoms.

May not this frontier fever, this continued malarial "mountain" fever, be the uncivilized progenitor of the typhoid of civilization?

In the course of the ensuing year I hope to be able to publish a more extended account of this disease with clinical history of cases, etc.

Respectfully yours,

G. E. GOODFELLOW, M.D.

TOMBSTONE, A. T., October 9, 1885.

NEW INVENTIONS.

A NEW BINAURAL STETHOSCOPE.

BY WILLIAM A. EDWARDS, M.D.,

FIRST ASSISTANT DEMONSTRATOR OF CLINICAL MEDICINE IN THE UNIVERSITY OF PENNSYLVANIA, MEDICAL REGISTRAR PHILADELPHIA HOSPITAL.

THAT binaural stethoscopes have not received from American physicians the attention that they demand is in part due, I think, to the lack of efficient and handy instruments. The majority of practitioners will not use an instrument that is bulky, inconvenient for ready carriage from patient to patient, or is awkward in its application.

Professor William Osler has had constructed a binaural stethoscope by Hawksley, of London, of which the accompanying cut is almost an exact counterpart, excepting two essential changes in the mechanics of the instrument, which have been added by Mr. Yarnall, the instrument maker.

The instrument (Fig. 1) is constructed in two separate parts; two fixed converging nickel tubes, and two flexible rubber tubes. The bone buttons on the nickel tubes are to be placed in the external auditory meatus; the buttons

FIG. 1.

are removable, and are constructed of various sizes, in order to fit each individual ear, which, I consider, is an essential point for the successful use of the instrument.

At the lower converging ends of the fixed nickel tubes is placed a rubber band, in order to hold the instrument firmly in the ear when in use.

Two cloth-covered rubber tubes, converging to a com-

mon bell-shaped, hard-rubber cap, which is to be placed on the patient's chest, complete the instrument; and, as such, Professor Osler and myself are in the habit of recommending it to the consideration of the students in the University.

I would formulate the points in favor of the instrument about as follows:

1. Its lack of "bulkiness," so common in all other binaural stethoscopes.

2. Its property of disarticulation, rendering the instrument just about the size of a single or monaural stethoscope (Fig. 2).

FIG. 2.

3. The facility with which it can be applied to the chest, not necessitating the practitioner's assuming constrained or uncomfortable attitudes.

4. The fact that this instrument allows the physical diagnostician to observe the locality that he is studying during the operation, and also enables him to avoid undue pressure.

5. The clearness with which it conducts sounds to the ear, and its great utility in the study of indistinct valvular disorders and hæmic murmurs.

The instrument is made in Philadelphia, at 115 South Tenth Street, by Mr. E. A. Yarnall, who calls it the "University Stethoscope."

300 SOUTH THIRTEENTH ST., PHILADELPHIA.

AN IMPROVED FORM OF REFRACTION OPHTHALMOSCOPE.

BY EDWARD JACKSON, M.D.,
CHIEF OF THE EYE CLINIC IN THE PHILADELPHIA POLYCLINIC.

THIS is an improvement, over earlier forms of refraction ophthalmoscope, in the arrangement of the lenses. The generally used Rekoss disk is discarded; and the lenses arranged in two narrow straight slides, which move immediately behind a rectangular tilting mirror of the usual focal length. The slides extend downward within the stem of the instrument; and at the lower extremity are furnished with milled projections, by which they are moved. The accompanying representation of the instrument renders a more minute description superfluous.

The lenses are selected and placed, five in each slide, so as to give single glasses or combinations of the following refractive powers:

Convex 0.5, 1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5, 6, 7, 8, 9, 10, and 11 dioptrics.

Concave 0.5, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, and 18 dioptrics.

The instrument is believed to possess these advantages:

1. It is the lightest, thinnest, simplest refraction ophthalmoscope yet devised.

2. The whole of this most valuable refractive series is obtained by a slight movement of the forefinger, without ever taking the instrument from the eye.

3. The hand holding the instrument can be further from the patient's face than is possible when the Rekoss disk is employed, unless recourse is had to some more complicated mechanism such as the toothed wheel of Fox's and Juler's ophthalmoscopes.

To the makers, Messrs. Queen & Co., of Philadelphia, I am indebted for important suggestions, and the mechanical working out of the instrument.

A LARYNGEAL APPLICATOR.

BY ALEXANDER W. MAC COY, M.D.,
OF PHILADELPHIA.

THE accompanying figure represents a laryngeal applicator, for applying certain caustics, after fusing them on the roughened aluminium point.

The features of superiority claimed for the instrument are the following:

1. A double-acting lever movement.

2. Uncovering of the stylet by drawing the tube backwards instead of *pushing out* the concealed stylet (the usual method), and thereby avoiding the aberration at the point.

3. Flexibility of the stylet and tube, allowing a variety of positions, and diversity of uses.

4. Self-recovery of the tube by a spring in the handle.

NEWS ITEMS.

THE NEW YORK POLYCLINIC. — The necessity for post-graduate instruction seems increasingly felt, as this institution opens this year with a larger class of practitioners on its roll of students than ever before, and since its opening three years ago, over 600 physicians have registered in the various classes.

PUBLIC OPINION ON THE CONGRESS ORGANIZATION.—Discussion, so far, has done little to stay the ruinous course pursued by the malcontents of the New Orleans meeting in regard to the International Congress. The new combinations of the Chicago and New York Committee meetings have only made a bad matter worse.

When we look back upon the whole affair from this standpoint, we cannot help feeling that those gentlemen who represented the International Medical Congress made a very unwise move in asking the American Medical Association to take any part in the construction of the forthcoming meeting. These gentlemen would have done far better by taking the whole responsibility upon themselves, and this course would have been satisfactory to the members of the last Congress, the evidence of which we have in Sir James Paget's letter to Dr. Hays.

The discourtesy of the American Medical Association towards the original committee seems not to occur to the reconstruction committee, and there can be but one interpretation of the whole matter—the new committee intends to organize a Congress upon a basis so objectionable that it has already divided the profession into two parties. If the gentlemen composing this new organization are willing to undertake it, they cannot be prevented, but it would be well if they could be, both for the success of the Congress and the unity of the profession.—*North Carolina Medical Journal.*

The belligerent members of the American Medical Association claimed and exercised the right to revise, amend, and alter the work of the original committee on the International Congress, and they did alter it with a vengeance by virtually kicking the old committee out of office and starting over again. Now the new committee do not propose to have any one criticise, revise, amend, or alter their work, and consequently have resolved "That the actions of this Executive Committee are final, not being subject to revision, amendment, or alteration, either by the Committee of Arrangements or the American Medical Association." We do not believe this resolution, however, unanimously adopted by the committee, will save them from a general overhauling at the St. Louis meeting in May, 1886.—*Peoria Medical Monthly.*

The unhappy Committee on Organization, like Sisyphus, is still at its work, which falls down as fast as it builds it up. No committee has ever labored under such difficulties. It was unfortunate in its origin, and has been unlucky ever since. It inaugurated at Chicago a narrow and illiberal policy, which very soon resulted in disaster. Resignations began to decimate the rank and file of the various sub-committees and sections, and has continued ever since. Many new appointments have been made, but the process of disintegration exceeds the work of repair. The result, at this rate, is inevitable.—*The New Orleans Medical and Surgical Journal.*

PRECAUTIONS AGAINST SMALLPOX.—The Wisconsin State Board of Health has just issued a circular from which the following extract is made:

It is matter of common knowledge that smallpox in virulent form has for some time past been prevailing in Canada, from which it has been hoped to protect the United States by the rigid inspection of all persons passing from that country into this. Notwithstanding this precaution, smallpox has very recently appeared in this State in a family direct from Montreal, and before the existence of the disease was known, many persons had been exposed to the contagion. It is hoped that in this case, as in a previous recent outbreak of this disease (also brought from Montreal), vigorous measures may prevent an epidemic, but these occurrences, and the fact that smallpox has lately appeared in several other States, should be accepted by all health authorities, and by the public, as a sufficient warning that this is a time of special danger, and that smallpox may at any time be brought to any community.

The State Board of Health earnestly advises all persons who have not been successfully vaccinated within five years, promptly to secure, both for their own sakes and as a duty they owe to the public, the protection from smallpox which a recent successful vaccination confers.

Throughout the State, local boards of health are advised to watch carefully for a period of two or three

weeks from the date of their arrival, all newcomers within the territory under their supervision, and, especially, those coming from an infected district, making sure if any sickness occurs in such persons or families, that its character be known. It is especially advised that in all places where lumbering operations are carried on, or in which large bodies of men are employed in any capacity, every effort should be made to secure their general vaccination, and it would, in many places, be both wise and economical to have this done at public expense.

THE FAC SIMILE OF HARVEY'S MS. LECTURES.—As our readers have been informed, Harvey's MS. Lectures will soon be published in fac simile of the author's handwriting, accompanied by an interleaved transcript in ordinary printer's type. We learn from the *Medical Times and Gazette*, that the work is making good progress, and that Messrs. Churchill have every expectation of issuing it to the subscribers early next year. The photographic reproduction has been very successful, so that many of the MS. passages come out more legibly than in the faded and time-worn original, a result which has not a little facilitated the labors of the transcriber.

THE ROMAN SANITARY CONFERENCE.—The question of the reassembling of the International Sanitary Conference at Rome is, according to *The Lancet*, still unsettled. It will be remembered that as soon as the Technical Commission had presented the result of its labors to the full Conference, that body was adjourned until November 16th. According to the *Popolo Romano*, some of the States which were represented at the Conference in May last have not yet sent in their adhesion to the proposal for its reconvocation.

DECLINE OF THE CHOLERA IN FRANCE.—U. S. Consul, Frank H. Mason, at Marseilles, France, writes to the Department of State under date of October 1, 1885, as follows:

Since the last sanitary report from this Consulate, September 9th, the cholera, which had at that time spread throughout a large part of this district, has gradually subsided, and the epidemic may now be said to have reached its final stage. There are now recorded from three to five choleraic deaths per day in Marseilles, but they are nearly all among the fugitives who have returned to their homes without due precautions in respect to ventilation and disinfection, and have been imprudent in their diet or habits.

The record of deaths from Asiatic cholera in this city from the commencement of the epidemic to the last day of September inclusive, is as follows:

Month of July	44
Month of August	956
Month of September	230
Total	1230

These are the figures officially given by the sanitary authorities. It is certain, however, that for the period from the 30th of July until the 21st of August, at which date the city journals began publishing the death list, they are understated, and that the real number of deaths from cholera during August was 1174 instead of 956. The difference between these two totals records the choleraic deaths registered simply as "children," and the numerous persons who died from complications of cholera and other diseases, under such conditions that the attending physician felt justified in reporting the death as one which would not preclude an ordinary funeral.

The total deaths from all causes for August and September numbered as follows:

For August.

From cholera	956
" typhoid fever	100
" typhus fever	4
" measles	10
" whooping-cough	11
" scarlatina	5
" smallpox	34
" diphtheria	22
" pulmonary consumption	131
" convulsions	87
" apoplexy	44
" diarrhœa	24
" gastroenteritis	88
" stillborn	75
" accidental	8
" meningitis	120
" cerebral congestion	42
" pneumonia	48
" enteritis	124
" uterine cancer	12
" suicides	10
" all other causes	346
Total	2301

The large mortality ascribed in these tables to "convulsions," "cerebral congestion," and "apoplexy" may be, in a great measure, ascribed to cholera, those sudden and violent maladies being used as euphemisms for the Asiatic malady under the circumstances above described.

The details of the mortality for September are not accessible. The record kept at this Consulate shows a total list of 1082 deaths, of which 230 were due to cholera. On the basis of these official statistics, the epidemic of 1885 has claimed, therefore, down to the present date, 1230 victims, or two-thirds of the whole number that perished from cholera during the scourge of 1884. This is an unusually fatal record for a second year's visitation at Marseilles, the mortality of these secondary outbreaks having been uniformly less than half that of the preceding summer.

At Toulon, the course and subsidence of the malady have been precisely similar to that in Marseilles, except that it began a month later, and was relatively more fatal during the worst period of the epidemic. The most fatal day at Toulon was the 27th of August, on which date there were recorded in that city 42 deaths from cholera.

At Marseilles, the scourge reached its highest mortality on the 21st of the same month, with a record of 69.

On the 11th of September the cholera death-rate at Toulon had declined to six per day, and since then it has fluctuated from one or two, and some days more, up to seven or eight daily. These sudden and temporary recrudescences have been ascribed wholly to the return of fugitive families to their homes, which had remained closed or badly ventilated during their absence, and they enforce anew the importance of those precautions which have been described in previous reports of this series as imperative under such circumstances. As a principle, a person having once left an infected city, should remain away until the last trace of the epidemic has disappeared, and then return only to lodgings thoroughly renovated and prepared.

At Cette, where the cholera was announced in these dispatches as having appeared on the 6th of September, the disease was promptly suppressed, but as it has continued to prevail to some extent at various points in the Department of Herault and Garde—in the former of which Cette is located—I have thought it prudent to require the Consular Agent at that port to employ a Medical Inspector, and continue the careful examination of all vessels clearing from that port for ports in the United States.

It is a pleasure to be able to close the record of this epidemic without including among its victims the name of any citizen of the United States. This is the more gratifying in that the malady was, particularly in its earlier stages, peculiarly fatal to foreigners, notably English and Scandinavians.

The few American families who reside here are mostly in circumstances which enable them to spend the hot months away from the city. Such as remained here have, as usual, taken all wise precautions, and have avoided the carelessness and excesses which are in so many cases fatal to other foreigners.

Two American vessels were in port during the early and most fatal stage of the epidemic. Upon depositing their papers at the office, their captains were informed of the actual sanitary condition of the port, and urged to see carefully to the food of their men, keep them on board at night, and prohibit drinking and all other excesses. They were also provided with the formula of a remedy to be used immediately in all cases of diarrhœa or choleraic attack.

Both vessels, after discharging cargoes here, went to Hières, a small port near Toulon, where they loaded with salt for Boston and New York. While here and at Hières, there were in all, on both vessels, nine cases, including both captains, of acute choleraic diarrhœa. One of these masters was seized during the night while his vessel was moored in the worst part of the old port, with profuse vomiting and dejections, cramps and chills, all the symptoms of Asiatic cholera which then prevailed among the shipping and on shore in his immediate neighborhood. He used the remedy, called no physician, and two days afterwards his vessel cleared for Hières. All the nine cases on board both ships were similarly treated, and all survived, though it was afterwards found necessary to return one of the sailors to a hospital in Marseilles, where he ultimately recovered.

The usual result of experience is to inculcate extreme diffidence with reference to the many alleged specifics for cholera. There are circumstances under which all remedies seem alike powerless and ineffective. But if the experience of the past summer can add any therapeutic suggestion to what has been said in previous reports of this series, it would be to recommend the remedy which was used in the cases of the American captains and their crews. It is the prescription of the lamented Dr. Valentine Mott, of New York, one of the foremost physicians of our country. It embodies the results of his experience in three successive epidemics of cholera, and was used by his own son during the pestilence of 1884 at Toulon and Signes, with extraordinary results. Its formula is:

Tincture of rhubarb	10 parts.
Extract capsicum	2 "
Laudanum, Sydenham . . .	4 "
Camphor	½ "
Syrup of ether	50 "
Syrup bitter orange peel . . .	50 "

Sig. One teaspoonful in a little water, and repeat until symptoms cease.

It cannot be said that the epidemic of this year has been fertile in scientific results. Little, comparatively, has been done either here or at Toulon in the direction of experimental or scientific inquiry. The verdict of last year's investigation was, "We have shown what cholera is *not*, but we cannot tell what it is." With that result and the generally accepted overthrow of Dr. Koch's theory, the medical men of this region, while awaiting the probably similar collapse of the Ferrán inoculation process in Spain, have been content to treat the epidemic of this year not as an opportunity, but as an affliction, to be fought down as quickly and quietly as possible.

It is doubtful whether the final statistics will show that any substantial progress has been made in treating the most malignant forms of the disease, or that the proportion of deaths to cases has been reduced so much as one per cent. by all the experience of those two sombre years. The one effective treatment for Asiatic cholera is to avoid it. The remedies are intelligence, temperance, correct living—that individual religion of the body which is an essential part of human civilization—supplemented by the improved drainage, ventilation, and municipal cleanliness which are the basis of modern sanitary science. France, Italy, and Spain, the Latin nations of the Mediterranean, have suffered as examples to other and less exposed countries, of the negligence which becomes perilous in the presence of cholera; and it will be unpardonable if the lesson is not thoroughly learned and practically utilized.

PASTEUR'S DISCOVERIES IN INOCULATION FOR HYDROPHOBIA.—A recent cablegram to the *New York Herald* states that Dr. Louis Pasteur's experiments have resulted in a most brilliant success. At perhaps the most important sitting held by the Academy of Sciences, Dr. Pasteur thus described the process of cure by means of a rabbit inoculated with the fragment of a tissue taken from the spine of a rabid dog. The inoculation of the poison occupied fifteen days. As soon as the first rabbit inoculated was dead, a portion from its spinal marrow was, in turn, inoculated into a second rabbit, and so on until sixty rabbits had been inoculated. At each successive inoculation the virus increased in potency, and the last period of incubation did not occupy more than seven days.

Having ascertained that exposure to dried air diminished the virus, and consequently reduced its force, Dr. Pasteur supplied himself with a series of bottles of dried air. In these bottles he placed portions of inoculated spinal marrow at successive dates, the oldest being the least virulent and the latest the most so. For an operation, Dr. Pasteur begins by inoculating his subject with the oldest tissue, and finishes by the injection of a piece of tissue whose bottling dates back only two days, and whose period of incubation would not exceed one week. The subject is then found to be absolutely proof against the disease.

A boy, 12 years of age, named Meister, who had been bitten fourteen times, came from Alsace with his mother to see Dr. Pasteur. The autopsy of the dog which had bitten the boy left no doubt as to its having suffered from hydrophobia. Dr. Pasteur took the celebrated Dr. Vulpian and a Professor of the School of Medicine to see the boy Meister. These two doctors came to the conclusion that the boy was doomed to a painful death and might be experimented upon. In thirteen days inoculations were made upon Meister with pieces of spinal marrow containing virus of constantly increasing strength, the last being from the spine of a rabbit that died only the day before. Now a hundred days have passed since Meister underwent the last inoculation. The treatment has been thoroughly successful, and the boy is in perfect health. He had been bitten sixteen hours, and had travelled from Alsace to Paris before the first inoculation was performed.

A shepherd boy named Judith, aged 15, was bitten by a mad dog a fortnight ago and has now been a week under treatment. Dr. Pasteur is confident of curing him.

Dr. Pasteur said that it was now necessary to provide an establishment where rabbits might always be kept inoculated with the disease. In this way a constant supply of spinal tissues of old and recent inoculation would always be ready. Before the sitting was adjourned, Dr. Pasteur received an enthusiastic ovation, from both the Academy itself and the public who were present. Among those present I noticed the Grand Duke Alexis, who is a great dog fancier, and M. de Lesseps, who went to hear Dr. Pasteur's report endorsed by Dr. Vulpian.

One of the leading doctors present remarked that the question was whether a man, cured of hydrophobia, could suffer from a second bite—in other words, whether the inoculation of virus was a guarantee against hydrophobia. In answer, Dr. Pasteur states that the malady is transmissible only by bite. If, therefore, by a general compulsory inoculation for several generations, dogs had been made incapable of hydrophobia, the malady would have disappeared, and there would be no occasion to ask whether inoculation had a permanent effect or not. As to the origin of hydrophobia, Dr. Pasteur says nobody in the world can explain its primal causes. As he remarked—perhaps out of politeness—his theory will require study by the profession in order to make it practical, but he emphatically stated that the cure for hydrophobia had been found.

THE GRAEFE MEDAL AND PRIZE.—It was determined by the Heidelberg Ophthalmological Society, soon after the death of Albrecht Von Graefe, to found, in honor of his memory, a gold medal to be awarded every ten years, for the most distinguished work done in ophthalmology. The first medal has just been unanimously decreed by the Society to Professor Helmholtz, of the Berlin University.

After Graefe's death, a prize was also founded by the late Professor Welz, of Würzburg, to be awarded every third year for articles appearing in the *Archiv für Ophthalmologie*, founded by Graefe, which the Ophthalmological Society deemed most deserving of it. The fifth award has been made to Dr. Samuelson, of Cologne, the former prizes having been presented to Professor Leber, of Göttingen, to Dr. R. Weber, of Darmstadt, to Dr. Knies, of Zurich, and to Dr. von Güdden, of Munich.—*Medical Times and Gazette*, October 24, 1885.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U. S. ARMY, FROM OCTOBER 27 TO NOVEMBER 2, 1885.

MCELDERRY, HENRY, *Major and Surgeon.*—Granted leave of absence for four months from November 1, 1885.—*S. O. 246, A. G. O.*, October 26, 1885.

PATZKI, J. H., *Captain and Assistant Surgeon.*—Appointed member of Board to meet at Forts Jackson and St. Philip, La., on November 5, 1875, to select a site for the new quarters for the advance sergeants at those posts.—*S. O. 230, Department of the East*, October 28, 1885.

TOMEY, G. H., *Captain and Assistant Surgeon.*—Granted leave of absence for two months, to take effect after the return from leave of absence of J. C. Baily, Major and Surgeon.—*S. O. 87, Division of the Atlantic*, October 24, 1885.

EWING, C. B., *First Lieutenant and Assistant Surgeon* (Fort Leavenworth, Kansas.)—To accompany Congressional Committee of which Hon. W. S. Holman is Chairman, in its visit and inspection through Indian Territory.—*S. O. 160, Department of Missouri*, October 21, 1885.

IVES, F. J., *First Lieutenant and Assistant Surgeon.*—Relieved from temporary duty at Fort Laramie, Wyoming Territory, and ordered to Fort D. A. Russel, Wyoming Territory.—*S. O. 106, Department of the Platte*, October 22, 1885.

MORRIS, E. R., *First Lieutenant and Assistant Surgeon* (recently appointed).—Assigned to duty at Fort Bayard, New Mexico. He will continue on detached service under orders of District Commander.—*S. O. 160, Department of Missouri*, October 23, 1885.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE UNITED STATES MARINE-HOSPITAL SERVICE, FOR THE WEEK ENDING OCTOBER 31, 1885.

AUSTIN, H. W., *Surgeon.*—To proceed to Portland, Maine, on special duty, October 31, 1885.

CARTER, H. R., *Passed Assistant Surgeon.*—When relieved, to proceed to New Orleans, Louisiana, and assume charge of the Service, October 27, 1885.

BATTLE, K. P., *Assistant Surgeon.*—Granted leave of absence for thirty days, October 27, 1885.

WILLIAMS, L. L., *Assistant Surgeon.*—To proceed to Chicago, Illinois, for temporary duty, October 28, 1885.

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.*

Local papers containing reports or news items should be marked.

Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

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